

MEKELLE UNIVERSITY
COLLEGE OF BUSINESS AND ECONOMICS
Department of Management
Postgraduate Program (MBA)



**ASSESSMENT OF TRADE STANDARDS ON ETHIOPIA's FRESH FRUIT
EXPORT**

By:

Dawit Negussie Tolossa

ID Number: CBE/PR/042/05

A Thesis Submitted to the Department of Management in Partial Fulfillment of the
requirement for the Award of Master of Art Degree in Business Administration
(MBA - Specialization of International Business)

Principal Advisor: Dereje Teklemariam (Assistant Professor and PhD Candidate)

Co-advisor: Amanuel Teklay (MBA-Lecturer)

June, 2014
Mekelle, Ethiopia

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DECLARATION

I, Dawit Negussie, declare that the thesis entitled “Assessment of Trade Standards on Ethiopia’s Fresh Fruit Export Volume.” submitted by me for the award of the Masters of Business Administration (MBA) with specialization in international business, at Mekelle University is original work and all sources of materials used for the study have been duly acknowledged. I have carried out this project work independently with the guidance and support of my advisors. This study has not been presented for the award of any other Degree, Diploma, and Fellowship of any other university or institution.

Name: Dawit Negussie

Signature _____

Place: Mekelle

Date _____

THESIS REPORT

Graduate program

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Specialization

Title: ASSESSMENT OF TRADE STANDARDS ON ETHIOPIA'S FRESH FRUIT
EXPORT VOLUME

Dawit Negussie

June 3, 2014

Accepted by management department, university of Mekelle in Partial Fulfillment of the
requirement for the Master Degree

_____ Dean, Graduate School or Department Head
Adonay Habtu

THESIS ADVISORS

_____ Principal Advisor
Dereje Teklemariam (Assistant Professor and PhD Candidate)

_____ Co-Advisor
Amanuel Tekle (MBA - Lecturer)

CERTIFICATION

This is to certify that this thesis entitled “Assessment Of Trade Standards On Ethiopia’s Fresh Fruit Export Volume” submitted in partial fulfillment of the requirements for the award of the degree of Masters of Business Administration with specialization in International Business to the College of Business and Economics, Mekelle University, through the Department of Management, done by Mr. Dawit Negussie, ID No. CBE/PR042/05 is a genuine work carried out by him under our guidance. The substance embodied in this thesis has not been submitted earlier for award of any degree or diploma to the best of our knowledge and belief.

Principal Advisor:

Dereje Teklemariam

(Assistant Professor and PhD Candidate)

Mekelle University

College of Business and Economics

..... Signature

Date

Co-advisor:

Amanuel Tekle

(MBA - Lecturer)

Mekelle University

College of Business and Economics

..... Signature

Date

ABSTRACT

Agriculture is the backbone of Ethiopia's economy and the major source of foreign exchange earnings. Fresh fruit products have been among the most dynamic areas of international agricultural exportable trade. The country has high potential of fresh fruit production and supply for the export market. However, trade standards are becoming a global phenomenon; countries in the developing world face increasing constraints in exporting their products to markets in the developed countries. The Government of Ethiopia is encouraging fresh fruit exports industry as a significant area and the sector has a huge potential for developing an economy. However, its competitiveness is unsatisfactory due to external and internal problems hindering its competitiveness. The aim of this study was to assess the trade in Ethiopia's fresh fruit export and the effects of trade standard on its fruit export volume to international market. Especially, Ethiopia's fruit export volume in line with the context of trade standard measurements of fruits. The study was conducted in Koka and Holeta town and their peripheries. Data has been collected from Alemye agricultural investment, Almeta Impex PLC, Holleta Rose PLC and ILAN TOT PLC. The study employed cross sectional survey design and purposive sampling technique. Structured questionnaires (23) and semi structured interview were distributed to respondents and were returned (23). The research is based on the response of samples which have been gathered by primary data (using structured questionnaires and semi-structured interview) from managers and senior experts. Four enumerators were employed for data administration. To analyze the data, descriptive statistical methods such as frequency, percentage, mean, tables, graphs, and different types of charts were used for data generated through questionnaires using SPSS with available versions 16. The result of the study identified that trade standards are barriers for Ethiopia's fresh fruit export and have significant impact on producers too. Finally, to upgrade the fresh fruit export business, the researcher recommended that there should be due commitment of higher officials in Ethiopian Commodity Exchange and Ministry of Agriculture (fresh fruits quality inspection center) in clarifying the concept of fresh fruit trade standards to producers. Besides, the Ethiopian government specially the Ministry of Trade should put additional effort to come up with different preferential free trade agreements with major international market destinations especially for potential high value export commodities like fresh fruits.

Key words: - Agriculture, Ethiopian fruits, Export, Trade Standard.

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LIST OF ABBREVIATIONS AND ACRONYMS

BRC	- British Retail Consortium
CSA	- Central Statistics Authority
E.C	- Ethiopian Calendar
ECX	- Ethiopia Commodity Exchange
EEA	- Ethiopian Economic Association
EEPA	- Ethiopian Export Promotion Agency
EHDA	- Ethiopian Horticulture Development Agency
EHPEA	- Ethiopian Horticulture Producer Exporters Association
ESA	- Ethiopian Standards Agency
ETI	- Ethical Trading Initiative
EU	- European Union
EurepGap	- Europe Good Agricultural Practices
FAO	- Food and Agricultural Organization of the United Nation
GAP	- Good Agricultural Practices
GATT	- General Agreement on Tariffs and Trade
GDP	- Gross Domestic Product
Global GAP	- Global Good Agricultural Practices
GTP	- Growth and Transformation Plan
HACCP	- Hazard Analysis Critical Control Points
IPM	- Integrate Pest Management
IPPC	- International Plant Protection Convention
ISO	- International Organization for Standards
KG	- kilogram

MOFED	- Ministry of Finance and Economic Development
NBE	- National Bank of Ethiopia
NGO	- Non-Governmental Organizations
NTBs	- Non-Tariff Barriers
OIE	- Organization for Animal Health
OECD	- Organization for Economic cooperation and development
PHI	- post harvest interval)
PLC	- Privet Limited Company
SPS	- Sanitary and Phytosanitary
TBT	- Technical Barriers to Trade
SEDEX	-Supplier Ethical Data Exchange
SMETA	- Members ethical trade audit
SPSS	- Statics package for social science
SQV	- Save Quality Food
WTO	- World Trade Organization
UK	- United Kingdom
US	- United States

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CHAPTER ONE

INTRODUCTION

The introduction section of the research proposal includes background of the study, statements of the problem, objectives of the study, limitation of the study, scope, definition of key terms and organization of the study.

1.1. Background of the study

Trade fresh fruit products has been among the most dynamic areas of international agricultural trade, developed by rising incomes and growing consumer interest in product variety, fresh-ness, suitability, and continuous availability (Jaffee N. D., 2002).

Ethiopia is seeking to improve fruit exports into the world especially to European market. Its efforts have to confirm and assure with standard and safety food exports from developing countries like most African countries, which Ethiopia commenced in 2009, are now targeting the standard products and the national volume to improve the country's fruit exports to the European market (Capital , 2012).

The suitable climate Conditions in Ethiopia make it possible to cultivate nearly all sub-tropical, tropical and temperate horticultural crops. It is great opportunity for commercial export growers to cultivate and export fresh fruits and green produce to the Middle East and the EU-markets. Fresh Fruits, Assorted vegetables, cut flowers, and triple concentrate tomato paste are the main exportable horticultural commodities in Ethiopia. Currently in Ethiopia, companies engaged in the horticulture industry are more than 120; among which over 100 are active exporters (EHDA, 2010). Ethiopia is suitable place for the production of a wide range of vegetables and flowers, sub-tropical and tropical Fresh fruits, thanks to the country's promising climate, abundant labor, and land and water resources. Among the main exportable Fresh fruits are mandarin grapefruits, strawberry, mangos, oranges, guavas, lemons and limes. The volume of export products is growing and showing great promise (Embassy of Ethiopia, n.d).

Fresh fruit cultivation is certainly not a new activity in Ethiopia as the production of horticultural crops has been taking on for decades. In addition, there are many small producers growing a small range of fresh fruits for the local and regional export market. The

sector includes large state farms supplying fresh fruits to the local market and for exports. There are still only a few private firms involved in the commercial production of fresh fruits for export trade (Joosten, 2007). Ethiopian exporters should be aware of the dual trade structure that exists in the Middle East markets. In addition to this there is also a rapidly expanding modern retail segment which is bringing international trading practices and standards to Saudi Arabia and the United Arab Emirates. As a result the quality and food safety standards are becoming more important (EHDA, 2011).

Trade(product) standards, meaning rendered in the international guide of the world's largest global standard setting group, International organization for standards (ISO) reads as follows:

“Standard is a document established by consents and approved by a recognized body that provides for common and frequent use, rules, guidelines or characteristics for activities or their result, aimed at the achievement of the best degree of order in a given context.” (Ahmed, 2010).

As per the above definition, we can understand that trade standards specify the character of a product. This can also involve regulations affecting the design and safety of a product, or could also mean the specification of what a certain product should have either at times of manufacturing or what a product need to serve after it reaches to the final consumers (Ahmed, 2010).

Annual growth of nearly 3% the fresh fruit market in the Middle East is one of the fastest growing fresh produce markets in the world. Developing countries like Ethiopia; to get market access to the international agricultural markets are progressively determined by their ability to satisfy or met their trade partner's especially economically advanced countries by providing quality standards products. It is also applicable for fresh fruit exporters in Ethiopia (EHDA, 2010).

For some producers, standards may open up new opportunities as they make possible market access to particular market segments and we can take this state as if trade standards have the role of being catalysts when they give chance for the producers' comparative advantage. In the other side, the process of distributing gives the producers the chance of losing their market shares through marginalization and exclusion, as standards may impose high degree

of barriers for certain producers in terms of the short-term and long-term efforts needed for production under certification for the entrance of to the particular needed market which demanded certification. As a result, this study focuses to have a profound concern on the issue of trade standards. Particularly being burden for exporters from developing countries including Ethiopia's fresh fruit exporters. Based on this as idea this study has explored the trend in Ethiopia's fresh fruit export and the effects of trade standards up on its fresh fruit export volume to international market.

1.2. Statement of the problem

Fresh fruit products have been among the most dynamic areas of international agricultural exportable trade, stimulated by rising incomes and growing consumer interest in product variety, freshness, convenience, and year-round availability (Beghin, 2005). Simultaneously standard has become an issue in all sectors of business. Particularly standards are an increasingly important factor in export market development for agricultural commodities worldwide. The main driving forces behind the rise of private standards are the globalization of trade, progress in information technology, concentration in the food processing and retail industries, changing consumer preferences and regulatory changes in major developed markets (Liu, 2009).

Fresh fruit suppliers are required to give maximum assurance of social and environmental benefits that range from an ISO series to HACCP (Hazard Analysis Critical Control Point) to organics. Such requirements from the suppliers were either a facilitator role to international market penetration or act as barriers to entry to the international market. At last, a common argument for private standards developed by firms and supermarkets are believed that producers can more quickly be responsive to market needs by controlling their own standards by controlling the ingredients of the product and the process requirement even though understanding and meeting them is becoming increasingly challenging and tough task for the producer firms (Purcell, 2008). Standards in general take different forms depending on who sets them. They may be set in commercial legal codes and subject to fines if transgressed, they may be internationally known and widely used even though they have no exact legal basis, or they may be private, firm-specific requirements (Purcell, 2008).

Fresh fruit exporting companies in Ethiopia have been implementing trade Standards with

corporate social responsibility. So far, a significant numbers of companies are compliant with different recognized trade standards (Ethiopian code of practice level: Gold gap, bronze and silver and other certification like BRC, Tesco etc...). These trade standards are a foundation of the country's Code of Conduct and Regulations. In addition, the fulfillment of The Code of Practice helps companies meet international quality requirements.

Fresh fruit export in Ethiopia, between 2005/06-2010/11, beginning from a very low level, the supply of fresh fruit to the international market grew with an average growth rate of 17.6 percent per annum. According to National Bank of Ethiopia, in 2005/06 total fruit export was 6.5 million kilogram. By the year 2010/11, the figure reached 13.3 million kilogram .In the meantime, the foreign exchange earnings surged up from 2.1 million USD to 4.0 million USD (Tufa, 2013).

Europe is the world's biggest importer of fresh fruit and vegetables, and developing countries have become increasingly significant suppliers. In 2005, sub-Saharan Africa as a whole supplied over 650,000 tons of all categories of fresh fruit and vegetables to the UK. UK consumers spend at least £1 million per day on fresh fruit and vegetables from sub-Saharan Africa. Fresh fruit and vegetables imports grew by an estimated 6 per cent per annum over 1996 - 2004 (Adeline Borot de Battisti, 2009). To see the performance of the sector in a little more depth, the researcher looked at trends of some of the major exportable fresh fruit in the country. Accordingly, strawberry has been showing progress over the past years. Those fresh fruit is highly concentrated to the EU market and UAE (EHDA, 2013). However, entry barriers for new suppliers are high due to fact that quality and food safety standards are high. Controls and certification requirements are strict and importers do not accept supply errors in the form of delays, mistakes in product volumes, deviations from the agreed logistical or packing specifications (EHDA, 2011).

This study has examined the international trade trend of Ethiopia's fresh fruit exporters in connection with the context of trade standard. It assessed the effects of trade standards on Ethiopia's fresh fruit export this research focused on analyzing the export volume, unfit volume and the total marketable for export in light of the standard parameters. Fresh fruits for export purpose are practicing in Ethiopia as an export strategy and many domestic and foreign companies are producing different types of fresh fruits particularly Oromia region.

The region has high potential of fresh fruit production for export. However, standards becoming a global phenomenon, countries in the developing world face increasing constraints in exporting their products to markets in the developed countries (KAR, n.d). At the same time private standard bodies have apparently not considered the effects of their standards on developing countries, or the degree of their trade restrictiveness. Suppliers in developing countries who produce for the export market in developed countries face difficulties in complying with private standards, such as those required by global retailers, and numerous studies show that many smaller exporters have dropped out of the market (Adeline Borot de Battisti, 2009). However, to the best knowledge of the researcher there is no scientific evidence regarding the effect of trade standard on Ethiopian fresh fruit exporters. This study examined progress of fresh fruit export and the effect of all these fresh fruit standards up on the performance of exports. Thus, this study intended to fill this gap.

1.3. Objectives of the study

1.3.1. General objective:

The General objective of this research is to assess the trend in Ethiopia's fresh fruit export and the effects of trade standards up on its fresh fruit export volume to international market.

1.3.2. Specific objectives:

The specific objectives of the study are:

- To explore the trend of fresh fruit export of Ethiopia.
- To investigate the kinds of standards adhered by fresh fruit exporters.
- To identify whether fruit export standards are catalysts or barriers to Ethiopian fresh fruit exporters.

1.4. Research questions:

The study attempts to answer the following basic questions:

1. What is the trend of fresh fruit export in Ethiopia?
2. What are the kinds of standards adhered fresh fruit exporters?
3. Are fruit export standards catalysts or barriers to Ethiopian fresh fruit exporters?

1.5. Significance of the study

The findings of this research is to assess the effects of trade standards on Ethiopia's fresh fruit export volume and gives to increase their Knowledge and awareness of recommendations to the issue for policy makers, exporters, fresh fruit exporters, Ethiopian Horticulture Development Agency (EHDA), Ethiopian Horticulture Producer Exporters Association (EHPEA), Ethiopian commodity exchange (ECX) , Ministry of Trade, Ministry of Agriculture, and the significance of the study may not be limited to only these, but it can also be used as a reference for other researchers who may conduct a research in the related areas.

1.6. Scope of the study

Scope refers to the coverage aspects related to the particular study area. The research enclosed geographical in one region that is Oromia (in Koka and Holeta towns and their peripheries). So, the study focused only Ethiopian fresh fruit export companies which are Alemye agricultural investment, Almeta Impex PLC, Jittu Holeta PLC and Ilan Tot PLC. With the scope, the study identified the effect of trade standards on fruit exporters up on fresh fruit exporter firms. Methodologically, the study employed census design and purposive sampling technique. Structured questionnaires and semi structured interview distributed to respondents. The research based on the response of samples which gathered by primary data (using structured questionnaires and semi-structured interview) from managers and senior experts and the study limited to those only, the general managers, marketing managers and production managers, quality and standard assurance manager and professional employees of selected fresh fruit export firms. The reason behind is that the selected respondents could represent and relevant to the research study but nonprofessional employees were not included. The study focused on one type of fresh fruit that is strawberry. But the study didn't cover all different items of fresh fruits which it exports, this is because due to the in consistency exporting and their less export volume. The same time the research focus in the standard of fruits after post harvesting and does not include the effect of the extraneous variables like, political situation, weather condition, infrastructure etc.

1.7. Limitation of the study

Due to the high cost, energy and time needed, all Ethiopian fresh fruit export companies were not included, in the study. This has been a limitation in the research that the data is collected only from four major fresh fruit that is strawberry, for the reason of their volume of export and constancy of export for the past few years. Moreover, as every sampling technique has some inherent drawback, the purposive sampling technique has been used to select the companies. The research has its own limitations such as other fruit exporters may have relevant information about trade standard yet may not be selected. Furthermore, this study employed census design. Therefore, the above issues are expected limitations of this research.

1.8. Definition of key terms

Standards: International Organization of Standardization reads as follows:

“Standard is a document established by consents and approved by a recognized body that provides for common and repeated use, rules, guidelines or characteristics for activities or their result, aimed at the achievement of the optimum degree of order in a given context.” (Indriksone).

Standard also defined as *“A limit or rule approved and monitored for compliance by an authority, agency, professional or accepted body as a minimum acceptable standard,”* (Ahmed, 2010).

This definition gives importance to factors such as involvement of professionals in the process of setting standards and the fact that what standards do in most scenarios is to set the minimum benchmark. A product/service which come about to be not in line with this benchmark will be treated unfit to circulate in the market (Ahmed, 2010).

Fresh fruits: the sweet and fleshy product of a tree or other plant that contains seed and can be eaten as food.

Agriculture: is called farming or husbandry, is the cultivation of animals, plants(vegetables , fruits etc), and other life forms for food, fiber, biofuel, and other products used to sustain and enhance human life (Wikipedia, 2014).

Export: export means shipping the goods and services out of the port of a country. A function of international trade whereby goods produced in one country is shipped to another country for future sale or trade. The sale of such goods adds to the producing nation's gross output. If used for trade, exports are exchanged for other products or services (Investopedia , 2014).

1.9. Organization of the paper

The research paper has been organized into five chapters.

Chapter two: deals on review of related literature as well as empirical literatures pertinent to objectives of the study and conceptual framework.

Chapter three: consists of the research methodology including data type and source, method of data collection and instrumentation, research design and sampling procedure, data processing and method of data analysis, and description of the study area.

Chapter four: presents the results and discussion.

Chapter five: contains conclusion and recommendations.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

The literature review section of the research proposal will consist of relevant information about the overall issues about standard and effects of product standards with respect to export business in agricultural products in world particularly from developing countries and conceptual framework of the study: as discussed by various authors, scholars and researchers.

2.1. Standard defined

According to the introduction of Daniele Giovannucci (2000), on understanding grades and standards - and how to apply them;

“Grades and standards (G&S) are defined parameters that segregate similar products into categories and describe them with consistent terminology that can be commonly understood by market participants. In particular, standards are rules of classification and measurement established by recognized and consistent use or by regulation. Grades are specific systems of classifications that uniformly and consistently identify quantifiable and qualifiable attributes” (Giovannucci, 2000).

Standards have been communicated on numerous features of library knowledge like—standards for quality and performance, code of practice, terminological standards etc. Several of activities and services are carried out by reference library in our time. The word standard explains in different outcomes in a broad range of explanations which refer to numerous issues. However, in this study taking only those which have a link with the subject matter that we are looking at, the term standard may be defined as follows:

“Standard is something established by authorities, custom or general consent as a model or criterion” or “Something set up and established by authority as a rule for the measure of weight, quantity, extent, and value/quality.”. Standard is also defined as “a limit or rule approved and monitored for compliance by government authority, agency, professional or recognized body as a minimum acceptable benchmark...,” (Ahmed, 2010).

This definition gives significance to factors such as involvement of professionals in the process of setting standards and the fact that what standards do in most situations is to set the lowest benchmark. Any product which happens to be not in line with this benchmark will be treated unfit to circulate in the market (Ahmed, 2010).

Standards define what is to be traded on the global market, establish preferred processes, systematize expected quality levels globally, and make possible location of sourcing and production anywhere in the world by communicating the same information about quality to buyers and suppliers (Toomey, 2000).

2.2. Standards and Trade

In recent years, Standards are continuously dominating world trade and production. This is particularly important in sectors such as food and agricultural exports (Jaffee S. H., 2006). Over the past years food standards have increased with new regulations and requirements from national and international governments as well as from private actors and with standards focusing on different issues such as product quality, food safety and increasingly also ethical and environmental concerns (Maertens, 2009).

So standards are established by public regulators and compliance is obligatory; while voluntary standards are set by standards development organizations, such as the ISO, or national standards bodies in a formal process that involves multiple stakeholders such as industry and trade association or consumer organizations. Even though their application is not legally binding, voluntary standards can become a ‘commercial imperative’ or ‘de facto mandatory standard’, when producers require suppliers to comply with such type of standards. Many literatures on standards and trade do not differentiate between mandatory and voluntary standards (Swann, 2010).

2.3. Who sets standard?

At the international level, food standards are set by the different organs such as the international plant protection convention (IPPC) and the world organization for animal health (OIE); and regulated by the WTO sanitary and phytosanitary (SPS) agreement and the technical barriers to trade (TBT) agreement. Under these agreements world trade organization member states still have the right to adapt and deviate from international

standards as long as it is in the interest of human being, animal health and plant and based on scientific principles. Most national and regional governments have their own food laws and regulations and apply their own food standards that are often stricter than international requirements (WTO, 2013).

Besides the international and national public regulations, many large food companies, supermarket chains and non-governmental organizations (NGO) have engaged in establishing private food standards that are often stricter than public requirements and have adapted food quality and safety standards in certification protocols. Examples include Global GAP (formerly EurepGAP), the British Retail Consortium (BRC) Global Standards, Ethical Trading Initiative (ETI), Tesco Nature's Choice, Save Quality Food (SQV) Program, etc. even though private standards are legally not mandatory they have become *de facto* mandatory because of commercial pressure as a large share of buyers in international agri-food markets require compliance with such private standards (Humphrey, 2009). Private standards often go beyond food quality and safety specifications and include ethical and environmental considerations as well (Maertens, 2009).

British Retail Consortium

British Retail Consortium (BRC) is one of the leading trade associations in the UK. They represent all forms of retailers from small, independently owned stores, to big chain stores and department stores. The BRC produce standards that producers have to fulfill with, in different product areas, such as food, packaging and consumer products. Business companies exporting to the UK have to reach the BRC's standards to be certified via their own inspectors. Companies supplying supermarkets with own label food products often have to comply with the BRC standards: they are an industry-wide benchmark for quality and food safety.

BRC Global Standards

A BRC Global standard is well known for its global standards in four areas, producing much literature on topics like Food safety, Consumer products, Packaging and packaging materials, Storage and distribution.

“There are a number of benefits arising from the implementation of the BRC Global Standard – Food:

- i. It reduces the number of food safety audits by each retailer and allow technologists to concentrate on other areas, such as product development, or specific quality issues.*
- ii. It provides a single standard and protocol, allowing evaluation to be carried out by certification bodies who are accredited against the European standard EN45011 (ISO/IEC Guide 65).*
- iii. A single verification, commissioned by the supplier in line with an agreed evaluation frequency, will allow suppliers to report upon their status to those customers recognizing the standard ” (Consortium, 2014).*

Members ethical trade audit (SMETA)

The reduce duplication of effort in ethical trade auditing with a SEDEX members ethical trade audit (SMETA) from SGS. The Supplier Ethical Data Exchange (SEDEX) is a web-based system designed to give a hand to organizations manage data on labor practices in their supply chain. Members have the benefit of being able to publish their SMETA audit reports directly on the SEDEX system for viewing by all customers.

Members ethical trade audit members have agreed the Best Practice Guide, a common methodology to improve audit standards and promote mutual acceptance of audit reports. In addition to the principles in the Ethical trading initiative (ETI) Base Code, SMETA also review performance against the right to work of migrant workers, management systems and implementation, sub-contracting and home working and environmental issues.

SGS has a long and distinguished involvement in sustainability auditing against the requirements of various codes and standards. We are a founding member of the SEDEX Associate Auditor Group which works with SEDEX to drive convergence in audit methodology and reporting.

Discover how SMETA auditing from SGS can help you and your suppliers maintain compliance with ethical trading requirements.

2.4. The food safety standards

The Sanitary and phytosanitary is a measure of food safety standards structure on the existing disciplines contained in the general agreement on tariffs and Trade (GATT) and the Standards Code of 1979. The SPS agreement recognizes the right of member countries to adopt the necessary SPS measures to protect humankind, animal health or plant life, subject to conducting a risk assessment and providing that all these things are not disguised measures to restrict trade (Jongwanich, 2009).

Sanitary and phytosanitary:

The term “*Sanitary*” refers to human and animal health, including food safety, and “*phytosanitary*” refers to plants health. For the purposes of the Sanitary and Phytosanitary agreement, sanitary and phytosanitary measures are defined as any measures applied to: protecting human or animal life from risks arising from contaminants, additives, toxins or disease-causing organisms in their beverages or food; protecting human life from plant or animal carried diseases (known as “*zoonoses*”); protecting animal or/and plant life from pests, diseases, or disease-causing organisms; preventing or limiting other damage to a country from the entry, establishment or spread of pests (WTO, 2010).

Sanitary and phytosanitary measures include measures taken to protect the health of fish, forests and wildlife, as well as farmed animals and plants. Some measures for environmental protection may fall within the scope of the SPS Agreement (as defined above), such as to avoid contaminating drinking water, to frequently-asked Questions prevent farm soils or fish stocks from being contaminated by heavy metals, or to protect biodiversity. Measures purely to protect consumer interests or animal welfare are not covered by the SPS Agreement. These concerns, however, may be addressed by other WTO agreements.

In the food safety arena, a clear role for government is to adopt sanitary and phytosanitary (SPS) measures to protect human, animal, and plant life/health. Relative to developing countries, developed countries tend to adopt more strict food safety standards and regulations with a broader scope and to rely increasingly on certification and traceability. The additional expenses (costs) of compliance for meeting international SPS requirements are higher for

firms operating in developing countries because they must take additional steps forward to meet international food safety regulations and standards. Thus, their comparative advantage, achieved through lower production costs, will tend to be lower because of high incremental compliance costs. Asking that a high proportion of agricultural and food products are developing countries' exports and that export destinations are mainly developed countries. Concerns have arisen that SPS instruments or measures are affecting developing countries' access to export markets (Jensen, 2007).

SPS and china export: evidence for barriers

Importing countries are required to accept SPS measures of the exporting countries as equivalent to their own, if the exporting country can demonstrate that its health measures achieve the same level of protection as for the importing country (equivalency requirement). The SPS Agreement also requires that WTO members notify the WTO and their trading partners of changes in their SPS measures (transparency requirement). These notifications may contain information on the imposition or removal of a procedure or requirement that may act as barriers to trade (Jongwanich, 2009).

EU, Japan, and the US are the leading importers of China's agricultural products, accounting for about 68% of total Chinese vegetable and fresh fruit exports over the 1998-2000 periods. China's experiences with SPS barriers have been mainly with the leading importers country. Currently, Chinese exports of vegetables and fresh fruits are creating the most frequently met SPS problems. Low food hygiene, Excessive pesticide residues, unsafe additives, contamination with heavy metals and other poisons, and misuse of veterinary drugs have been major questions (Jensen, 2007).

2.5. Defining fresh fruit quality

The term food quality has a variety of meanings to professional in the general food industries. However the ultimate arbiters of food quality must be consumers themselves. This concept is embroiled in the frequently cited definition of food quality as the combination of attributes or characteristic of a product that have significance in determining the degree of acceptability of the product to consumers (China Food Packing Machine Supplier High Quality, 2010). Fresh fruits present an important part of the human diet in almost any culture of the globe. There has been also a long tradition in the view that fresh fruits and vegetables

should be consumed because of their nutritional and health benefits. Consuming a variety of fresh fruits ensures an adequate intake of most micronutrients, dietary fiber and essential non-nutrient substances (Péneau, 2005).

2.6. Trade Standards: barriers or catalysts

As cited, (The Copenhagen Journal of Asian Studies, 2008), with the increasing public consciousness of health and environment, food safety issues have grown much importance. The issue and problem related to food safety standards have been on the agenda in the global trade system for several years. Food safety standards in developed countries have become more stringent and have increased. These standards are the source of concern among many developing countries (OECD, 2004; World Bank, 2005). Therefore the role of food safety standards in international trade has become an important topic for discussion in recent literature. The view of the 'standards-as-barriers' to trade holds that increased food safety standards in developed countries are used as protectionist tools or in a discriminatory manner (Roberts, et al., 1999; Caswell, 2003). Conversely, the 'standards-as-catalysts' is more optimistic view that emphasizes the opportunities provided by emerging food quality requirements and the possibility that developing countries could use them to increase their competitive advantages (Steven, 2005).

As cited by Jaffee and Henson (2004), perishable agricultural products including fresh fruits and high-value foods has served to highlight the extent to which trade standards in general diverge, as well as the differential capacities of public authorities and commercial supply chains to manage the potential risks associated with trade in these products. Now days, beyond price and basic quality parameters, greater importance is given on food safety and agricultural health concerns, especially for higher-value foods, including fresh fruits. Across this range of products there is increasing attention to the risks associated, for instance, with residues from pesticides, microbial pathogens, veterinary medicines or other agricultural inputs and environmental toxins. Because of these, there is greater scrutiny of the production or processing techniques employed along these supply chains.

It is argued that the gains from trade liberalization are offset by increasing food standards that are mainly imposed by high-income countries and increasingly dominate the world's food trading system (Augier et al., 2005; Brenton and Manchin, 2002). These standards are argued

to act as new barriers to developing country exports. Moreover, others argue that high standards concentrate the benefits of trade with processing and retailing firms and large farms, in so doing casting doubt on the development impact of increased agricultural exports from developing countries. Standards would lead to an unequal distribution of the gains from trade and result in the marginalization of poorer farmers and small agri-food businesses (Swinnen, 2006). Food standards are increasingly important for developing countries' exports. Some argue that standards are new trade barriers that diminish the export opportunities for developing countries and offset the gains from trade liberalization (e.g. Augier et al., 2005; Brenton and Manchin, 2002). Others claim that compliance with food standards can be a catalyst for upgrading and modernization of developing country's food supply systems (e.g. Jaffee and Henson, 2005). In this section we briefly review and challenge the arguments of these different views (Swinnen, 2006).

The “*standards as barriers*” view hypothesizes a differential negative effect of HACCP adoption for developing countries. In the other side, developed countries, which mainly account for the implementation of enhanced food quality and safety standards, may experience a positive or a less negative effect of HACCP introduction on exports to the U.S. Industrialized countries are assumed to have the resources to adapt more quickly to increases in standards. Moreover, a drop in exports from developing countries in the post HACCP period may allow developed countries to add market share in seafood trade with the United States (Caswell, 2007).

2.6.1 Trade Standards as trade catalysts:

The task of complying with SPS should not be viewed just as a barrier, even though developed countries could deliberately craft food safety standards to protect their domestic markets, but also as an opportunity to improvement quality standards and market sophistication in the food sector in developing countries. Under developing countries need to be improved to increase the probability that the countries can successfully meet foreign standards especially in the supply-side capacity. To strengthen the supply-side capacity, agriculture sector in developing countries needs to be improved to ensure the quality of processed food products. The Improvement of agriculture sector is related to upgrading irrigation system and land quality as well as to the ability to adequately access raw materials

such as fertilizers. Especially, to improve quality and productivity in agriculture sector it is an essential path and best choice to upgrading production technology. Agricultural Improvements in certain technologies would lead to a more extended seasonal yielding pattern, improved taste and hygiene and uniform output. Seasonality of production could be better controlled, thereby reducing risks and enabling producers to diversify their crop. To improve agriculture sector, in addition to providing adequate financial resources, supporting vertical integration, either entire or partial, would become more important and relevant in the context of processed food industries (Jongwanich, 2009).

2.6.2 Trade standards as trade barriers

Standards have most frequently been discussed to act as new non-tariff barriers to trade, weakening especially the export opportunities of developing countries. There is also debate over how far to go in defining international obligations in established areas of GATT/WTO work, including areas like trade standards and food safety. The determination of what finally gets on the agenda, and how far any decisions apply, is a political process (Lattimore, 2009).

Trade differentiates the impact of standards set in the importing countries from standards set in the exporting country. Standards in the importing country can act as barriers to trade. Governments With the reduction of tariffs and quotas, increasingly use standards to protect their domestic industries. The concern of the developing countries is that, domestic standards in importing countries – especially in developed countries– increase the cost of compliance and restrict or even prevent market access (Henson, Jaffe 2008). Practical studies show that the costs of compliance can be important. For instance, Otsuki et al. (2001) estimate a gravity model to show that stringent standards for maximum allowable contamination in fresh fruit and nuts imposed in the European Union lead to significant export losses for African exporters Food Standards and Exports (Axel Mangelsdorf, 2012).

The private standard bodies of developed countries have apparently not considered the effects of their standards on developing countries, or the degree of their trade restrictiveness. Suppliers in developing countries who produce for the export market in developed countries face difficulties in complying with private standards, such as those required by global retailers, and several studies show that many smaller exporters have dropped out of the

market. And many developing countries find it difficult to produce goods that meet the internationally agreed food safety standards. However, meeting these standards is often insufficient to gain access to many markets, as the private standards set requirements well in excess of those of the Codex, IPPC or OIE.

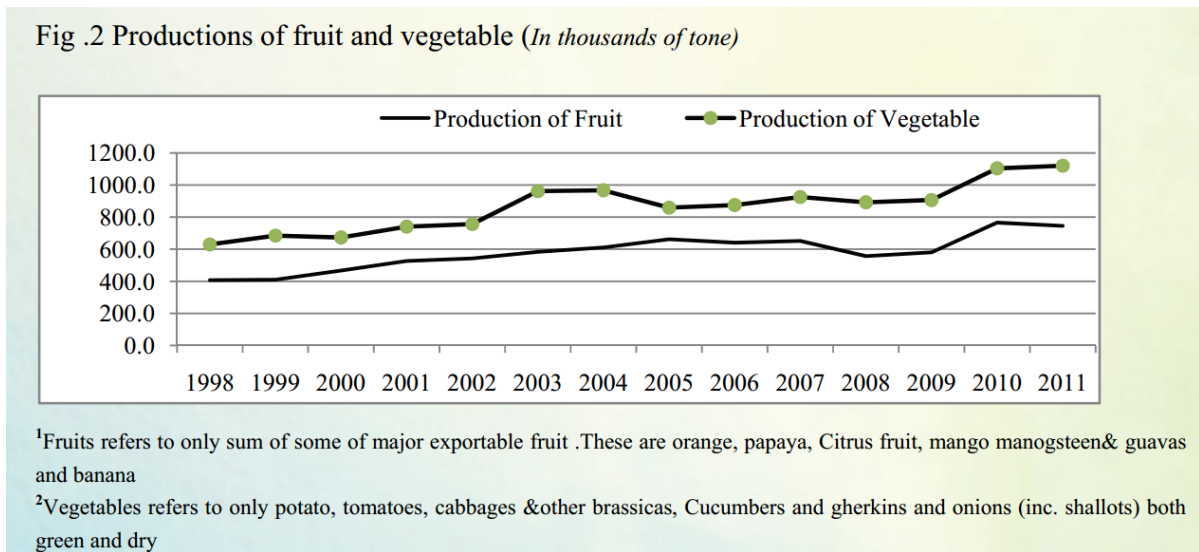
The Private retailers of developed countries have often forced and modified their requirements without any advance announcement and with no opportunity for producers in other countries to comment or complain. Some recent efforts, including the smallholder taskforce at GLOBALGAP, have begun to move in a different direction. However, compared to the disciplines that the SPS Agreement places on government regulations, there is little transparency in the development of private standards, and there is no forum for challenging private standards comparable to the SPS Committee or the dispute settlement mechanism of the WTO (Adeline Borot de Battisti, 2009).

2.7 Fruit Export in Ethiopia

The supply of fruit to the international market grew with an average growth rate of 17.6 percent per annum, Between 2005/06-2010/11, beginning from a very low level. According the information from the National Bank of Ethiopia (NBE), in 2005/06 total fruit export was 6.5 million kilogram (KG).

“By the year 2010/11, the figure reached 13.3 million kilogram .In the meantime, the foreign exchange earnings surged up from 2.1 million USD to 4.0 million USD. To show the performance of the sector in a little more depth, the researcher looked at trends of some of the major exportable fruit variety in the country. Accordingly, Papaya, Banana, Mangoes, Mangosetens and Guavas, Orange have been showing progress over the past decade. Similar to vegetable export, export of those fruit was highly concentrated to the Djibouti market. For instance, almost more than 95% of Papaya and Mangoes and Mangosetens have been exported to this market. Although Djibouti imports the lion share, as far as the price they are paying is concerned, it is the lowest as compared to many other countries. It is relatively better in United Arab Emirates and Saudi Arabia than Djibouti.” (Tufa, 2013).

Figure 2.1 production of fruit and vegetable



Source: Birritu No. 115 (2013)

2.8. Causes of compliance failures in developing countries

Having in mind and understanding the link between trade standards, and export competitiveness is at the forefront of trade policy analysis and debate. This is essentially true in regard to enhancing pro-poor growth and employment opportunities in developing countries like Africa. This broadening of consumer demand especially in the area of food safety has intensified the development of new industry codes of practice and enforcement mechanisms. The awareness to the development of standards is also becoming increasingly driven by the private sector as enforcement is moving toward primary production levels. Also, the burden of standards compliance appears to be shifting to producers and, in performance with national regulatory agencies, monitoring compliance is increasingly becoming the function of retailers and other groups higher up in the distribution chain (The World Bank, 2003).

A major barrier to compliance has been also the Cost of Certification, which is a major element of the EurepGap standards. Graffham (2006), a Zambian farmer on his study experience with the EurepGap standards, notes that some African certifiers charge up to four times more than the European-based certification bodies. These all high costs as well as other recurring costs such as audit expenses, training and expensive pesticides, overburden smallholder growers if no external support is provided to them (Graffham, 2006) (Muriithi,

2008).

Empirical evidence on trade standard:

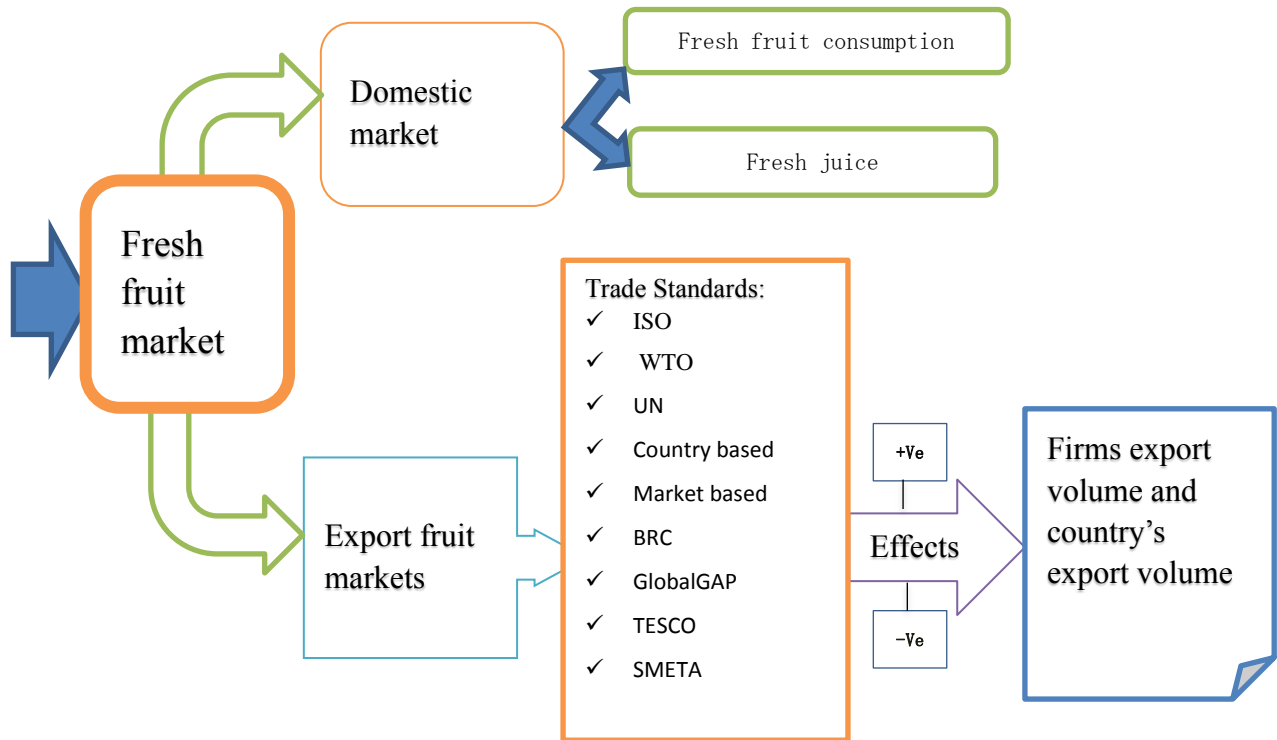
2.9.1 Food safety standards and Kenya exports: evidence for barriers

Among the African countries, Kenya is unique among developing countries in that the most significant player in the agricultural export sector is the smallholder. In the recent past, only a few Kenyan farmers were operating to international quality and safety standards. Export-bound agricultural products were being sold through informal networks of brokers, traders and resellers who had limited understanding of international trade standards. From the first of January 2005, farmers who export horticultural produce to the European Union were required to comply with the EurepGap regulations including a sophisticated set of good agricultural practices (GAP). These requirements cover among others agro-chemical use, record-keeping, farm infrastructure, hygiene facilities and grading and packing processes. The EurepGap were seen as yet another trade barrier to many farmers in Kenya the stringent non-legal requirements. Many of Kenyan farmers ask why European consumers are so against products from Kenya with no realization that the same rules apply to producers worldwide. Even for those farmers that understand the implications of traceability and EurepGap, and are getting ready to undertake the training and auditing procedures, there are many who feel that the information has come too late and they feel un-prepared for the challenges that lay ahead (Muriithi, 2008).

2.9. Conceptual Framework:

A well-defined conceptual framework provides a broader context, which is critical successfully interpreting indicators, supporting the designing of data collection system, and analytical plans.

Figure 2.1 Conceptual Framework for Contribution of fresh fruit export firms



Source: own constructed, 2014

Though there are many trade standard measurements that affect the fresh fruit export standard performance, this study will focus on some limited and common trade standard parameters of fresh fruit. Therefore, the researcher will take some of the parameters according the standard type.

The conceptual framework explains the relationship among the dependent variables and independent variables. The relationship is between international fresh fruit markets and firms and country's fresh fruit export volume. The trade standard may have two scenarios that is positive or negative result. When the trade standard has positive effect on export then the trade standard becoming as a catalyst for exporters otherwise if the trade standard has a negative effect, then the result of the trade standard becoming a barrier for the entry of international market.

CHAPTER THREE

RESEARCH METHODOLOGY

The research methodology section of the research proposal includes research strategy and design, data types, sources of data, sampling technics, data collection instruments, Data collection procedure, data processing and analysis Description of variables and ethical issue.

3.1. Research strategy and design

To investigate the objectives of the study, the research has designed and employed census (for the primary data), Using data from the period 2007/2008 – 2012/2013 (secondary data) and descriptive data analysis techniques to analyze the data, descriptive statistical methods such as frequency, percentage, mean, standard deviation, tables, graphs, and different types of charts used for data generated through questionnaires using SPSS with available versions 16. This type of research in design based on the purpose of the study, the directive of the research is to describe the links between trade standard and their effect on the volume of export fresh fruits. It also has both qualitative and quantitative variables in its contents. The study used mixed strategy to collect the necessary data from the selected study areas fresh fruit exporting factories using purposive sampling in which department managers, higher technical experts, and general managers, professional employees have included in the study.

3.2. Data types (Research Approach)

The qualitative approach and quantitative approach are the two major approaches when determining the nature of a research project. Kumar (2005) has differentiated qualitative and quantitative research methods depending on the intention of the research, data gathering procedure and analysis of data. According to this classification, the purpose of a quantitative study is to count the degree of difference in a phenomenon or condition through the use of a structured or planned and prearranged methodology and investigates them with some statistical procedures. In contrast, a qualitative research search for collected data so as to illustrate distinction in a situation, phenomenon or dilemma by the use of an unstructured and flexible methodology and analyzes them in a rather descriptive and non-quantifiable way.

For the achievement of the stated objectives, the researcher used both qualitative and

quantitative types of data. Both primary and secondary sources were used for the collection and review of relevant document and information. The primary data collected through structured questionnaires and semi-structured interview questions. Structured questionnaires and semi structured interview which consists of both close ended and open ended has used for the collection of data. On the other hand, secondary data also is collected from documents such as company's manual, periodical reports, and journal.

3.3. Sources of data

3.3.1 Primary Data Source

In this research basically, primary data source were employed to gather first-hand information to achieve the objective of the research the appropriate respondents were General Managers, production department head, quality assurance head and some professional employees through using purposive sampling. The reason behind was that, these respondents had relevant information for the study and have knowledge on their companies' standard export performance than other workers of the organization. For instance, the head of production-filled questionnaires on the production related factors that affect their companies, due to the standard and related factors that affect their companies export performance and professional employees related to the standard of the product. The data collected by using structured questionnaire to see the effect of trade standard up on the volume capacity of export fresh fruits. For the structured questionnaire, four enumerators employed and necessary information about how to administer questionnaires had given for the enumerators.

3.3.2 Secondary Data Sources

The secondary data that is necessary for the study were collected from Ministry of Trade and Ethiopian commodity exchange (ECX), Ministry of Agriculture, Ethiopian Horticulture Development Agency (EHDA), and Ethiopian horticulture producer exporters association (EHPEA). Moreover, published and unpublished credentials obtained from different sources has used. These embrace related journals and articles with the study, reports and seminars. The study also tried to assess the brief review of the issue of trade standard and its effect especially on export performance (volume).

3.4. Sampling technique

The study used multi-stage sampling method to select the fresh fruit producers companies which are basically fresh fruit exporters in Ethiopia. The reason behind this choice is that is the firms are large volume of fruit exporters in the country. All the Companies are also members of the Ethiopian Horticulture producer Exporters Association (EHPEA).

Data had collected on a large number of variables, which include age of the employee, level of education, years of experience, knowledge and understanding of trade standard and production volume, sold volume, unsold fruits volume, and risks of unfit fruit for the market. Data had collected for the agricultural year 2013/14 G.C.

Table 3.1: Total number of respondents

No	fresh fruit exporters Company Name	Respondents						
		General Managers	Deputy Manager	Marketing Managers	Quality Assurance Manager	Production Manager	experienced employees	Total respondents
1	Alemye Agriculture	1	1	1	1	1	2	7
2	Almeta Impex	1	1	1	1	1	1	6
3	Ilan tot PLC	1	1	1	1	2	2	8
4	Jittu Holeta	1	1	1	1	1	3	8
5	Other respondents from the EHDA who has knowledge about standard							2
	Total respondents are =							31

Source: own study, 2014

According to the information obtained from administration office of each organization there are total 31 respondents were selected using Census sampling techniques since this technique allows the researcher to select respondents who have relevant information about trade standard with respect to their departments.

Using a census for small populations; one approach is to use the entire population as the sample. Although cost considerations make this impossible for large populations, a census is attractive for small populations (e.g., 200 or less). A census eliminates sampling error and

provides data on all the individuals in the population. In addition, some costs such as questionnaire design and developing the sampling frame are "fixed," that is, they were the same for samples of 50 or 200. Finally, virtually the entire population would have to be sampled in small populations to achieve a desirable level of precision (Israel, 2005).

3.5. Data Collection Techniques or Instruments

3.5.1. Questionnaire

Primary data have gathered using a structured questionnaire. This method covered only General Managers, production department head, quality assurance head, and some professional employees of the study area of fresh fruit Exporters Company. Then the researcher applied purposive sampling selection and select firms from the total population and applied census for the respondents. The process of data collection had completed when the researcher gets all respondents and distributed questionnaires. The research mainly relied on semi structured, structured five point Likert scale questionnaire to collect primary data from samples. For the structured five point Likert scale each question had five alternative answers in accordance with Likert scale. This range is expressed as 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, and 5=strongly agree.

3.5.2. Secondary Data Collection

The study used both primary and secondary data; the required secondary data for this study gathered from Ministry of Trade and Ministry of Agriculture, Ethiopia Commodity Exchange (ECX), Ethiopian Horticulture Development Agency (EHDA), and Ethiopian horticulture producer exporters association (EHPEA). Regarding data of the exported volume of the firms' fruit, different published and unpublished sources, such as International fresh fruit Organization, and websites had assessed.

3.5.3. Data collection procedure

To gather data through semi structured questionnaire, the researcher hired four experienced enumerators/ data collectors/ who collected data located in the study area under a close supervision of the researcher. Data collected in the month of February (detailed information of this is presented on the time and activity scheduling part). The data have gathered from the

company. During the data collection through questionnaire, field editing had performed by the researcher with the collaboration from the enumerators.

3.6. Data Processing and Analysis

Data processed manually and finally keyboard used for recording (for data entry). The data edited and coded so as to make the data useful and relevant to analysis. Based on the data obtained from both primary and secondary sources, both qualitative and quantitative data analysis methods were applied. By doing so, imperfect and inappropriate information were filtered out and accuracy of the data maintained to keep the accuracy of conclusions. The data that is going to be generated through questionnaire were analyzed by employing the computer software known as SPSS with available versions 16. The descriptive statistical methods such as frequency, percentage, standard deviation, mean, tables and graphs have used for analyzing the data generated through both from the primary source (questionnaire) and secondary sources.

3.7. Ethical Issues

Any research that has no room for ethical considerations cannot be termed as valid. The researcher thus undertakes all necessary measures to ensure that all ethical aspects of the research process are followed. In particular, the researcher made efforts to ensure that the respondents understand that their participation in the research process is on a voluntary basis, and that they can withdraw from the project at any time according to their wish. Furthermore, the researcher also took all measures possible to ensure that respondents' identities are kept anonymous (Gronhaug, 2002).

CHAPTER FOUR

RESULTS AND DISCUSSION

In this chapter findings of the study are presented, analyzed and discussed. The first part of the chapter deals with demographic characteristics of respondents. The remaining sections of the chapter are organized based on sequence of the objectives for which the study was conducted.

In this chapter findings of the study are presented, analyzed and discussed. The first part of the chapter deals with demographic characteristics of respondents. To analyze the collected data in line with the overall objective of the research undertaking, statistical procedures were carried using SPSS version 16. The research study supposed to include four companies such as, Almeta Impex PLC, Alemye Agricultural investment PLC, Jittu Horticulture PLC and IlanTot PLC. However the companies Ilan Tot PLC were not interesting to give the necessary information of the company. So I have forced to do my analyses with the other three companies.

4.1 Reliability Test Result

The reliability of an instrument is the degree of consistency which measures the attribute; it is supposed to be measuring (Zikmund *et al.*, 2010). They stated that the less variation an instrument produces in repeated measurements of an attribute, the higher its reliability. Reliability can be equated with the stability, consistency, or dependability of a measuring tool. The test is repeated to the same sample of people on two occasions and then compares the scores obtained by computing a reliability coefficient.

4.1.1 Cronbach's Coefficient Alpha

This method is used to measure the reliability of the questionnaire between each field and the mean of the whole fields of the questionnaire. The normal range of Cronbach's coefficient alpha value between 0.0 and + 1.0, and the higher values reflects a higher degree of internal consistency. Different authors accept different values of Cronbach's alpha in order to achieve internal reliability, but the most frequent accepted value is 0.70 as it should be equal to or higher than to reach internal reliability (Hair, 2003).

Table 4.1 Cronbach's Alpha for each field of the questionnaire

Number of Items	Cronbach's Alpha
Entire 38	0.706

Source: own Survey, 2014

The Cronbach's coefficient alpha was calculated for each field of the questionnaire. Table above shows the values of Cronbach's Alpha for each field of the questionnaire and the entire questionnaire. For the fields, a value of Cronbach's Alpha result ensures the reliability of each field of the questionnaire. Cronbach's Alpha equals 0.706 for the entire questionnaire which indicates an excellent reliability of the entire questionnaire. Therefore, based on the test, the results for the items are reliable and acceptable.

Descriptive Analysis

This descriptive analysis was used to look at the data collected and to describe that information. It was used to describe the demographic factors for more clarification. It is mainly important to make some general observations about the data gathered for general or demographic questions. The demographics factors used in this research were gender, age, educational qualification, and experience of respondents work in the fresh fruit production.

4.2 Demographic Profile of Respondents

Though many demographic characteristics of respondents could be there, this paper emphasized on limited factors such as sex, years of experience, positions and education levels or qualifications.

From the Table below, we can indicate that 69.60% of the respondents were male and the remaining 30.40% were females. Likewise, the table also indicates the distribution of male and female managers and senior experts across companies. This indicates that fresh fruit production in the companies is mainly dominated by male managers. However in some companies like Almeta were dominated by female managers and senior experts. Unlike Almeta in other two companies were dominated by male managers.

Table 4.2 Demographic Profile of Respondents

Category	Frequency	Percent
1. Gender		
Female	7	30.4
Male	16	69.6
Total	23	100
2. Age		
18-30 years	8	34.8
31-45 years	13	56.5
45 and above	2	8.7
Total	23	100

Category	Frequency	Percent
3. Education		
Diploma	0	0
Degree	23	100
Total	23	100
4. Experience		
1-5 years	12	52.2
6-10 years	8	34.8
Above 11 years	3	13.0
Total	23	100

Source: own survey, 2014

The table represents the age composition of the respondents and it indicates that majority of respondents were within the age group of 31-45 years old which represents 56.5%, followed by those whose age group was within 18-30 and above 45 representing 34.80% and 8.70% respectively. From the table, one can understand that respondents were dominated by those whose age is between 31-45 years old which indicates the active and adult working age groups who can believe in negotiation with different stakeholders, while those less than 30 and above 45 years were the least. This implies; since majority of managers and senior experts of those factories are within active working age groups, there may be a commitment to negotiate and tackle problems of those factories and voluntary to work with its stakeholders.

The above table represents educational level of the respondents. As indicated in the table, the respondents (100%) were those who have first degree. Moreover, the table revealed that there were no certificate, diploma and second degree holders. From the table, one can easily

understand that 100% of the respondents have first degree holders, which is satisfactory education level that seems to solve the problem of qualified human resource problems but according to the interview made with general managers, most employees have lack of some skills.

The above table and Figure 4.4 shows that majority of the respondents (52.20%) stated that they have the experience of 1-5 years. In addition, 34.8% and 13% asserted that they have the experience of 6-10years, 11-15 years respectively. From this figure, one can easily conclude that these organizations have less experienced managers and experts to deal with fresh fruit standard of their organizations.

Descriptive Statistics of Scales Typed Questionnaires

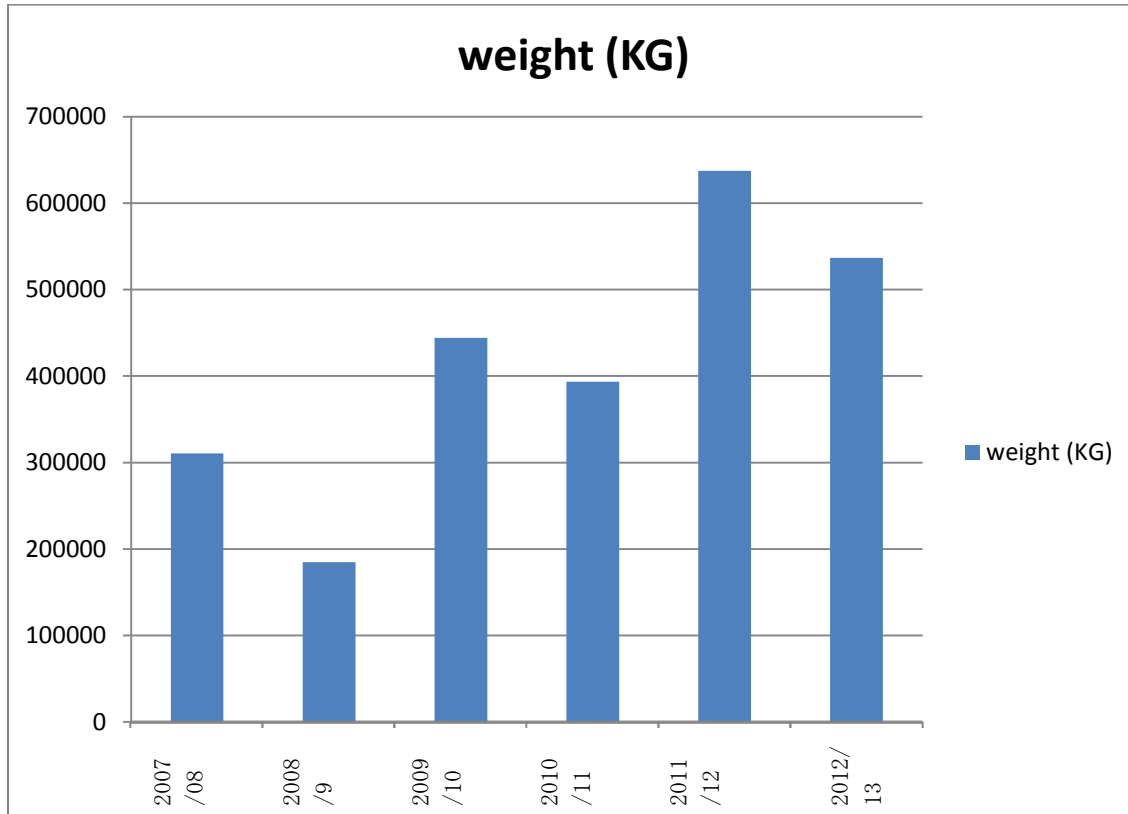
In this part descriptive statistics in the form of mean and standard deviation are presented to illustrate the level of agreement of the respondents with their implications to Commercial Bank of Ethiopia.

The responses of the respondents for the variables indicated below were measured on five point Lickert scale with: 1= very low, 2= low, 3 = medium, 4= high and 5= very high. But, while making interpretation of the results of mean and standard deviation the scales are reassigned as follows to make the interpretation easy and clear. 1 - 1.8= very low, 1.81 – 2.6 = low, 2.61 – 3.4=medium, 3.41 – 4.20= high and 4.21 – 5 = very high, (Yonas, 2013).

4.3 The fresh fruit export trend of the country

The figure below shows that, the trend of fresh fruits of the country to international market (Europe and Middle East); specially focused on strawberry for the past six years.

Figure 4.1 Fruit exporters to international market (Europe & Middle East)



Source from EHDA -2014 - own constructed

Graph 4.1 Fruit exporters to international market (Europe & Middle East) volumes in Kilogram

Number of Investors (FDI, joint venture and local ownership) engaged in the sector are increasing in number. Accordingly the current status is depicted as follows:-

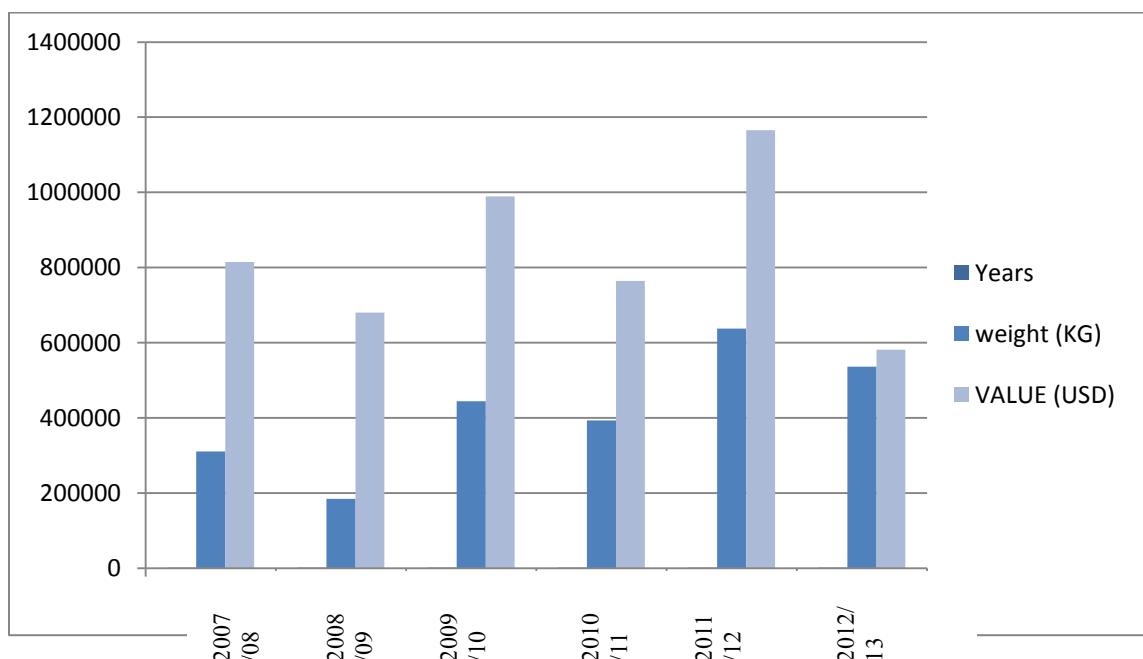
Table 4.3 investors engaged in the sector

Ownership	No of Investors engaged in production of fresh Fruit
FDI	6
Joint Venture	-
Local	2
Total	8

Source EHDA (2013)

Accordingly the current status is depicted as follows:-As shown in the above graph is the trend of Ethiopian fresh fruit exported to the international (to Europe and Middle East) market for the last 6 years (from 2000-2005 E.C). As the data (from EHDA) shows these fruit is only strawberry from different exporters company of the country. The companies which are bringing their fresh fruit to the international market are the following: Almeta Impex, Ethio Veg Fru, ILAN TOT Private PLC, Jittu Horticulture PLC, Nuredin Hassen and The Giving Tree Nusrery. From these four of the companies(Almeta Impex, Jittu Horticulture PLC, ILAN TOT Private PLC and Alemeye Holeta Horticulture PLC) are exporting with consistency way and with high volume. However the other companies are on and off to export their fruits with different reasons.

Fruit exporters to international market (Europe & Middle East) volumes in Kilogram and their value (USD).



Graph 4.1 Fruit exporters to international market (Europe & Middle East) volumes in Kilogram and their value (USD).

The horticultural export industry has recorded increasing growth each year, both in volume and value. Accordingly, the revenue secured from the industry has also increased from year to year.

Market Destination: Ethiopia is exporting the majority of its horticultural products to

Europe, however, it is exporting its high quality flowers, vegetables and fruit to over 100 market destinations throughout the world (EHDA, 2013).

Table 4.7 the first top ten market outlets for fruit and vegetable.

No	MARKET DESTINATION	% Share in Quantity	% Share in Value
1	Somalia	46.3	37.2
2	Djibouti	44.0	26.4
3	Netherlands	3.0	17.1
4	United Arab Emirates	3.3	9.3
5	Sudan	1.8	1.8
6	United Kingdom	0.2	1.8
7	Belgium	0.4	1.8
8	Yemen	0.3	1.0
9	Saudi Arabia	0.4	0.8
10	Russian Federation	0.1	0.5

Source: EHDA, 2013

Growing world demand raising the volume of export is crucial in order to increase earning. But, this doesn't mean that attention should not be given to quality, packaging, appropriate storage, building up of cold chains and so on. In this regard, boosting production will by large improve volume of export. In addition, According to the Food and Agriculture Organization of the United Nations statistical database which is produced by FAO, in general the production of fresh fruit in Ethiopia has been showing a promising improvement, with a slight fluctuation. The chart below shows the production of selected (Tufa, 2013).

4.4 assessment of the issue of standard (grade)

For some producers, standards may open up new opportunities as they make possible market access to particular market segments and we can take this state as if trade standards have the role of being catalysts when they give chance for the producers' comparative advantage. According to Interviews the majority of the respondents have the understanding of standard: as interview indicates shows that there are parameters of fresh fruit standard. The parameters are as follows below.

The very first step which is:

1) Provision concerning quality: The purpose of the standard is to define the quality requirements for strawberries at the export-control stage after preparation and packaging.

In this step there are minimum requirement for fruits to be fulfilled in order to provide to international market. The strawberries must be sufficiently developed, and display satisfactory readiness. The development and condition of the strawberries must be such as to enable them: to withstand transportation and handling and to arrive in satisfactory condition at the place of destination.

According the respondents there are a minimum requirements to provide fresh fruits to international maker. Almost all respondents 100% mention the following requirements: there are Moisture content, Undamaged, clean, free from pest, free from any smell in addition to this the other is classification of fruits according their nature. The classification is: extra class, class I, class II.

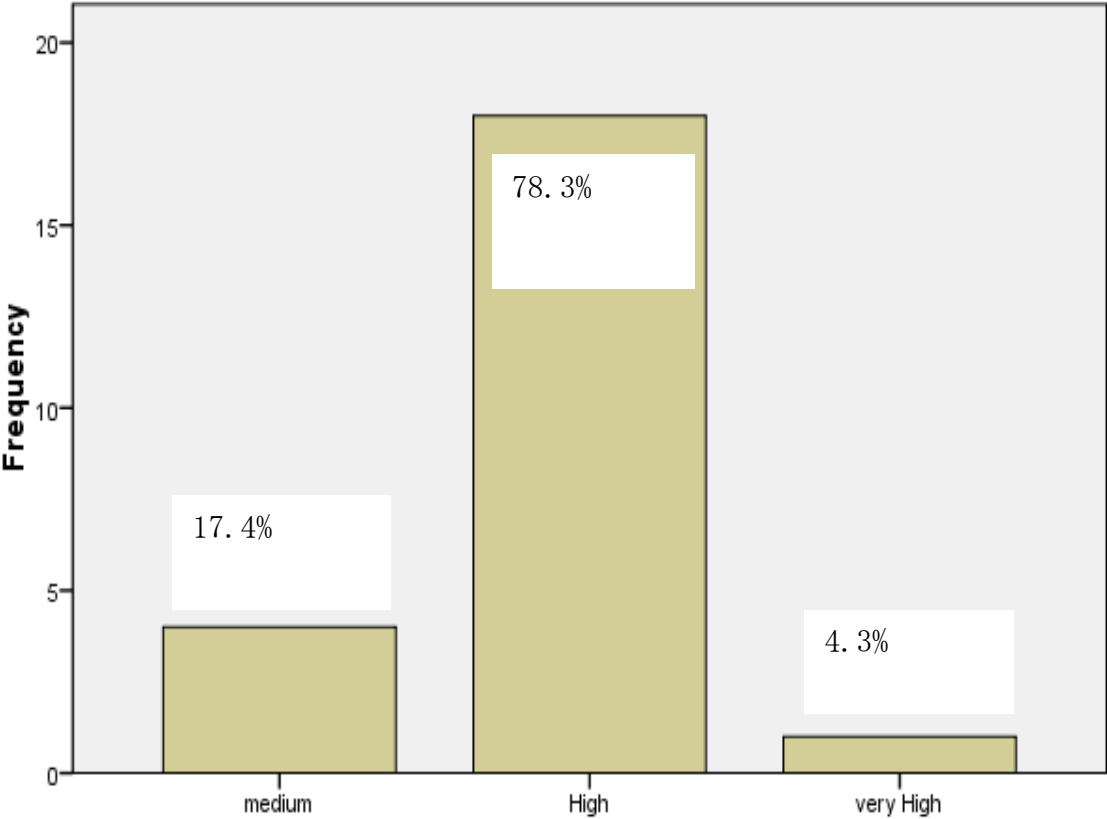
2) Provision concerning sizing is other matter on the provision of quality fruits, according to most respondents 69% the size does not matter much. And few 31% it matters most.

3) Provision concerning presentation, according the majority respondents 100% the fruits should have uniformity and well Packaging method.

4) Provision concerning Marketing. The respondents believe that requirement of the customer is identification, Nature of produce, Origin of produce are the most important.

In general as the interview shows the different parameters that fresh fruit standard is measured. Among the different parameters, the majority of the respondents 100% understand the parameter called moisture content. The other parameter is odour and the majority of the respondents 55% do not understand the parameter but the rest 44% understand it well. We get the parameter defect point and the majority of the respondents 90% do understand the parameter well and only 10% of the respondents don't know about the parameter to a good extent. Parameter called colour and the majority of the respondents 92% understand it well but 8% of the respondents do not know about it well. Finally, the researcher finds out that majority of the respondents have understanding of the technical parameter measurements of the fresh fruit standard (UNECE STANDARD , 2010).

Graph 4.1 knowledge and understanding of fresh fruit standard



Source: own survey, 2014

Figure 4.1 Knowledge and understanding of fresh fruit standard

The above figure shows that the knowledge and understanding of respondents in the organizations have specific knowledge about the issue of fruit standard and the majority of the respondents 78.3% perceive that their level of understanding is high. Large number of respondents 17.4% perceives that their knowledge and understanding of the issue is medium. 4.30% of the respondent replied that their level of knowledge and understanding is very high. But there is no any respondent who rates his/her understanding as low and very low. This result tells us that the majority of the respondents understand the issue of fresh fruit standard at a normal or medium level. These unsatisfactory levels indicate that producers need help in updating their knowledge on the issue of fresh fruit standard and make them beneficiary via producing standard fruits which in turn maximizes the income of the organization by exporting more fruits to the world.

N	23
Mean	3.87

Table 4.4 way of keeping the standard of fresh fruits

How do you keeping the standard of the fruits?	Frequency	Percent
Application of scientific practice	1	4.3
periodical follow up, application of necessary inputs, application of scientific practice, environmental protection like terracing and cultivation of new fruit trees.	6	26.1
Periodical follow up, application of necessary inputs, application of scientific practice and cultivation of new fruit trees	16	69.6
Total	23	100.0

Source: own survey, 2014

The above table shows, 69% of the respondents respond that they are keeping the standard of fresh fruits through periodical follow up, application of necessary inputs, application of scientific practice and cultivation of new fruit trees. 26.1% of the respondents respond that they keep the standard through the periodical follow up, application of necessary inputs like fertilizer, application of scientific practice, environmental protection like terracing and cultivation of new fruit trees. And 4.3% of the respondents are using application of scientific practice. From the table we can infer that fresh fruit producers have tried application of necessary inputs and application of scientific approach.

Table 4.5 standards set on the quality of fresh fruit

What standards are set on the quality of fresh fruit?	Frequency	Percent
high standard	17	73.9
very high standard	6	26.1
Total	23	100.0

Source: own survey, 2014

The above table shows that 73.9% of respondents replay high standard are set on the quality of fresh fruit. 26.1% of the respondents said that the standards that set on quality of fresh fruit are very high standard. And there are no respondents 0% which select very low, low and medium standard are set on the quality of fresh fruits. The research shows that the standard set by the international market or

N	23
Mean	4.26

customers are 73.9 % and 26.1 % high and very high standard respectively. As a result the organizations are expected to provide to international market high quality of fresh fruits.

Table 4.6 quality standard the organizations fulfil.

What quality standards does your product fulfil?	Frequency	Percent
Medium	2	8.7
high standard	16	69.6
very high standard	5	21.7
Total	23	100.0

Source: own survey, 2014

The above table shows the 69.6% of respondents claim that their organization fulfills high quality standard of fresh fruits. 21.7% of the respondents stated that their organization fulfills very high standard of fresh fruits. And 8.7% of the respondents said that their organization fulfills medium quality standard of fresh fruits. There are no 0% of respondents said, Very low and low quality standard of fresh fruits were fulfills their organization. The research finds that most of the organization trying to fulfill and provide high quality standard of fresh fruits to international market.

N	23
Mean	4.13

Table 4.7 Degree of regulations in force

To what degree are regulations in force?	Frequency	Percent
High standard	8	34.8
very High standard	15	65.2
Total	23	100.0

Source: own survey, 2014

Table above also shows the view of respondents about the degree of regulations force the organizations to fulfil fresh fruits standard. 65.2% and 34.8% force the regulation to fulfil very high standard and high standard respectively. As the research indicates the regulation force much to fulfil high standard on fresh fruits.

N	23
Mean	4.87

Table 4.8 Demand of quality standard by customers

What quality standards does customer demand?	Frequency	Percent
High standard	20	87.0
very High standard	3	13.0
Total	23	100.0

Source: own survey, 2014

Majority of the respondents (87%) described that currently customers demand high standard fresh fruits and 13% of the respondents described that customers demand very high standard.

N	23
Mean	4.96

Generally the research found that the customers demand high standard of fresh fruits. This study gives awareness to producers how to prepare their products to international market and customers.

Table 4.9 Demand of packaging standard by customers

How high are the standards demanded on packaging methods?	Frequency	Percent
Medium	2	8.7
High standard	16	69.6
very High standard	5	21.7
Total	23	100.0

Source: own survey, 2014

The above table indicate that; the demand of packaging standard by customers according to the respondents (69.3%) are high standard. 21.7% and 8.7% respond customers demanded very high and medium packaging standard respectively. No 0% responds very low and low packaging standards demand. The result showed that customers demand high standard and very high standard in general.

N	23
Mean	4.13

Table 4.10 package sizes and materials use for fresh fruit

What package sizes and materials do you use?	Frequency	Percent
Medium	9	39.1
High standard	14	60.9
Total	23	100.0

Source: own survey, 2014

As shown in the above table 60.9% of the respondents believe they use high standard package sizes and materials for fresh fruit in their organization the same time 9% of the respondents accept they use medium package sizes and materials for their fresh fruit in their organization. In addition to this the mean score shows 3.87 so, the majority of respondents agree that the package sizes and materials use are high standard.

N	23
Mean	3.87

Table 4.11 package sizes customers demand for fresh fruit

What package sizes does customer demand?	Frequency	Percent
High standard	18	78.3
very High standard	5	21.7
Total	23	100.0

Source: own survey, 2014

the fresh fruits are (78.3% and 21.7%) high standard and very high standard. No 0% respondent replay medium, low and very low standards. The result shows that the demand of the customers on the package size is very important and has its own value. In addition to this the mean score shows 4.13 so, the majority of respondents agree that the package sizes customers demand and are high standard.

N	23
Mean	4.13

Table 4.12 package materials use for fresh fruit

What packaging materials do you use?	Frequency	Percent
Medium	5	21.7
High standard	18	78.3
Total	23	100.0

Source: own survey, 2014

As shown in the above table 78.3% of the respondents believe they use high standard package materials and materials for fresh fruit in their organization the same time 21.7 % of the respondents accept they use medium package materials for their fresh fruit in their organization. In addition to this the mean score shows 3.78 so, the majority of respondents agree that the package materials use are high standard.

N	23
Mean	3.78

Table 4.13 package materials customers demand for fresh fruit

What packing materials does customer demand?	Frequency	Percent
Medium	2	8.7
High standard	15	65.2
very High standard	6	26.1
Total	23	100.0

Source: own survey, 2014

Result in the above table shows, according to the respondents; customers demand on using materials for the fresh fruits are (65.2% and 26.1%) high standard and very high standard. 8.7% of respondents said they use medium packing materials in their organization. And No 0% respondent replay medium, low and very low standards. The result shows that the demand of the customers on the package materials use has very important and have its own value. In addition to this the mean score shows 4.13 so, the majority of respondents agree that the package materials customers demand uses are high standard.

N	23
Mean	4.13

Table 4.14 quintals of fruits you are producing in the production year 2013/14

How many quintals of fruits you are producing in the production year 2013/14 G.C from the total land you are using?	Frequency	Percent
1001-1500 quintals	4	17.4
1501-2000 quintals	4	17.4
above 2000 quintals	15	65.2
Total	23	100.0

Source: own survey, 2014

The above table shows the number of quintals fresh fruit producers produce in the given year and the majority of the fresh fruit respondents 65.2% have produced above 2000 quintals of fresh fruit in the given year. A significant number of respondents 17.4% of them have produced 1501-2000 quintals of fresh fruit and the other 17.4% of fresh fruit respondents have produced 1001-1500 quintals. Based on the data presented in the above table one can easily understand that the majority of the fresh fruit producers have produced above 2000 quintals of fresh fruit in a given year.

Table 4.15 fresh fruits supplied to the international market every year

How much of it was supplied to the international market every year?	Frequency	Percent
1001-1500 quintals	5	21.7
1501-2000 quintals	18	78.3
Total	23	100.0

Source: own survey, 2014

As the above table shows the number of quintals fresh fruit producers supplied to the international market in the given year and the majority of the fresh fruit respondents 78.3% have supplied to international market 1501-2000 quintals of fresh fruit in the given year. A significant number of respondents 21.7% of them have supplied to international market 1001-1500 quintals of fresh fruit. Based on the data presented in the above table one can easily understand that the majority of the fresh fruit producers have supplied their fresh fruit to international market 1501-2000 quintals of fresh fruit in a given year.

Table 4.16 fresh fruits not sold last year

How much of it was not sold a given year?	Frequency	Percent
1-50 quintals	8	34.8
51-100 quintals	15	65.2
Total	23	100.0

Source: own survey, 2014

The above table shows the number of quintals fresh fruit producers produce and not sold to the international market in the given year and the majority of the fresh fruit respondents 65.2% have produced but not sold to the international market is 51-100 quintals of fresh fruit in the given year. A significant number of respondents 34.8% of them have produced but not sold is 1-50 quintals of fresh fruits.

Based on the data presented in the above table one can easily understand that the majority of the fresh fruit producers have forced to limited their sales to the international market because of the standard of the product fail to fulfil.

The restrictions that limit sales opportunities are listed I conduct the interview with the respondents. The majority respondents with is 100% (No. 23) said yes there are restrictions that limits sales opportunities. The following are some of the restriction: Colour, Size, Shape,

Firmness, Taste, and Sugar to acid ratio, Sometimes TSS, Minister of agriculture permit. Those restrictions are categorising in the different standard set by the customers.

The requirements of customer regarding production techniques and certification are so high and the producers demanded to supply their product in Different kind of standards. According to the respondent Ato Yilak Alemayehu (Head of quality assurance at EHDA) *“The production should be as per the standard and requirements of the market; Even the type of chemicals and fertilizers applications. There are different type of certificate which use for the market such as Global GAP, BRC, ETI, TESCO and etc”* these most includes as the majority respondents responds the products must be free from any foreign, Mix residual level, Quality size etc, Product quality, Quantity wise, Product PHI (post-harvest interval), Packaging, size etc.

According the interview conducted to the Birkneh (manager for quality assurance of Jittu Holeta PLC) *“Total un fit products to the international market are 5% - 7% of the total product that we produce”*.

4.5 Kind of standards Ethiopian fresh fruit producers adhere and status of market

Ethiopian Standard for Strawberries has been prepared under the direction of the Technical Committee for Fruit and derived products (TC 13) and published by the Ethiopian Standards Agency (ESA). The standard is identical with ISO 6665:1983, Strawberries – Guide to cold storage, published by the International Organization for Standardization (ISO). For the purpose of this Ethiopian Standard, the adopted text shall be modified as follows (ETHIOPIAN STANDARD AGENCY, 2012).

- *The phrase “International Standard” shall be read as “Ethiopian Standard”; and*
- *A full stop (.) shall substitute comma (,) as decimal marker.*

Coming to the issue and assess of what standards the fresh fruit producers adhere; Companies engaged in fresh fruit exports have been implementing with corporate social responsibility. So far, a significant numbers of companies are compliant with different recognized standards. These standards are a foundation of the country Code of Conduct and Regulations. In addition, the fulfillment of The Code of Practice helps companies meet international quality standard requirements (EHDA, 2012).

- i. The company should fulfill the requirements of the market especially for the EU market.

- ii. Sometimes these standards differ from market to market (place to place).

For e.g, the Middle East markets have not a problem with the size of the fruits but the EU is very serious.

Table 4.17 List of companies so far compliant includes,

<i>No.</i>	<i>Company name</i>	<i>certification levels</i>
1	Alemye Agriculture	Global GAP,
2	Almeta Impex	Global GAP,
3	Jittu Holeta	Global GAP,

Source: own survey, 2014

According the above table the three companies which I survey certified with Global GAP the reason behind is that most international market need for different certification level such as Golobal Gap, BRC, SEMETA, TESCO and etc. most of the fresh fruit companies have Global GAP which is the minimum requirement for the exporters of fresh fruit according the interview which is conducted.

Table 4.18 reasons for the unsold fruits

What were the possible reasons for the unsold fruits?	Frequency	Percent
Lack to meet standard	14	60.9
Lack to meet standard and transportation problem	5	21.7
price volatility, fall in domestic consumption and transportation problem	4	17.4
Total	23	100.0

Source: own survey, 2014

The above table shows the possible reasons for the unsold fresh fruit to the international market are according to the respondents 60.9% are Lack to meet standard. A significant number of respondents 21.7% of them have said that Lack to meet standard and transportation problem are the mine reasons for the unsold fresh fruit to the international market. And the other 17.4% of fresh fruit respondents have said that price volatility fall in domestic consumption and transportation problem are the mine reasons for the unsold fresh fruit to the international market. Based on the data presented in the above table one can easily

understand that the majority of the fresh fruit producers have the reason for the unsold fresh fruit to the international market is lack of to meet a required standards.

Table 4.19 fruits not sold related with lack to meet standard in quintals

If you select the option, lack to meet standard, in question 16, how much of it was not sold related with lack to meet standard in quintals?	Frequency	Percent
1-50 quintals	1	4.3
51-100 quintals	6	26.1
101-150 quintals	16	69.6
Total	23	100.0

Source: own survey, 2014

The above table shows the 101-150 quintals fresh fruit producers produce and not sold to the international market because of lack to meet standard of fresh fruit according to the respondents 69.6%. 51-100 and 1-50 quintals fresh fruits have produced but not sold to the international market for the same reason of lack to meet standard according to the respondents of 26.1% and 4.3% respectively. From this we can understand that lack to meet standard affects the supply of fresh fruit to the international market.

Table 4.20 Possible reasons for the unsold fruits

Attributes	Very low		Low		Medium		High		Very high		Total	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Moisture content	0	0	0	0	12	52.2	8	34.8	3	13	23	100%
size/screen	0	0	3	13.0	7	30.4	13	56.5	0	0	23	100%
Odor	0	0	0	0	18	78.3	5	21.7	0	0	23	100%
Defect point	0	0	0	0	2	8.7	14	60.9	7	30.4	23	100%
Color	0	0	1	4.3	2	8.7	14	60.9	6	26.9	23	100%
Taste	0	0	0	0	3	13	8	34.8	12	52.2	23	100%
cleanliness	0	0	0	0	1	4.3	0	0	22	95.7	23	100%

Source: own survey, 2014

In a related topic to the above table which shows the quantity of fresh fruits which is not sold for not meeting the required fresh fruit standard and discusses how the fresh fruits producers

rate the degree of severity the parameters have contributed to the unsold fruits. The parameters are rated as followed below tables:

Table 4.21 possible reasons for the unsold fruits because lack to meet standard of moisture content

Lack to meet standard because of moisture content	Frequency	Percent
Medium	12	52.2
High	8	34.8
very high	3	13.0
Total	23	100.0

Source: own survey, 2014

From the table above respondents 52.2% of each perceives that the parameter moisture content have a medium contribution for the unsold fresh fruits for not meeting the standard. A significant number of respondents 34.8% perceive it has high impact and 13% of the respondents perceive that the parameter contributes is very high. 0% of the respondents perceive that it contributes at its low and low level.

Table 4.22 possible reasons for the unsold fruits because lack to meet standard of size

Lack to meet standard because of size	Frequency	Percent
Low	3	13.0
Medium	7	30.4
High	13	56.5
Total	23	100.0

Source: own survey, 2014

The respondents upon the contribution of the parameter of size/screen for the unsold fresh fruits was as follows, the majority of the respondents 56.5% perceive that the bean size/screen contributes at its high level. With significant number of respondents 30.4% perceives the parameter contributes medium and 13% of respondents perceive low level contribution for the unsold fresh fruit among different parameters. 0% of the respondents perceive that it contributes at its very low and very high level.

Table 4.23 possible reasons for the unsold fruits because lack to meet standard of odor

Lack to meet standard because of odor	Frequency	Percent
Medium	18	78.3
High	5	21.7
Total	23	100.0

Source: own survey, 2014

According the above table the majority of the respondents 78.3% perceive that the contribution of the parameter called odour is at its medium level. And a significant number of 21.7% of respondents perceive that odour has high contribution on fresh fruit production. And there is no % of respondent that rates very low, low and very high for the parameter. And the table shows us that the contribution of the parameter called odour is that it has an important part on the production of the fresh fruit and sell to the international market.

Table 4.24 possible reasons for the unsold fruits because to meet standard of defect point

Lack to meet standard because of Defect point	Frequency	Percent
Medium	2	8.7
High	14	60.9
very high	7	30.4
Total	23	100.0

Source: own survey, 2014

The above table also shows us how the degree of the parameter defect point has contributed for the amount of unsold fresh fruits. The majority of the respondents 60.9% perceive that the contribution of the parameter is at its high level. A significant numbers of respondents 30.4% perceive that the contribution of the parameter is at the very high level. And 8.7% of the producers perceive the contribution the parameter for the unsold fresh fruits with a reason of lacking to meet standard was at its medium level. And there are 0% no respondents that rate low and very low for the parameter.

Table 4.25 possible reasons for the unsold fruits because to meet standard of color

Lack to meet standard because of color	Frequency	Percent
Low	1	4.3
Medium	2	8.7
High	14	60.9
very high	6	26.1
Total	23	100.0

Source: own survey, 2014

Table above also shows how the degree of the parameter colour has contributed for the unsold fresh fruit. The majority of the respondents 60.9% perceive that the contribution of the parameter is at its high level. Large numbers of respondents 26.1% perceive that the contribution of the parameter is at its very high level. 8.7% and 4.3% of the respondents perceive the contribution for the unsold fresh fruits with a reason of lacking to meet standard was at its medium and low level respectively. And no producer rates very low for the parameter's contribution.

Table 4.36 possible reasons for the unsold fruits because to meet standard of taste

Lack to meet standard because of taste	Frequency	Percent
Medium	3	13.0
High	8	34.8
very high	12	52.2
Total	23	100.0

Source: own survey, 2014

As the table in the above shows us the majority of the respondents 52.2% perceive that the contribution of the parameter called taste were at its very high. Large numbers of respondents 34.8% perceive that the contribution of the parameter is at its high level. 13% of the respondents perceive the contribution of the parameter for the unsold fresh fruit with a reason of lacking to meet standard is at its medium level respectively. And no producer rates low and very low for the parameter's contribution.

Table 4.27 possible reasons for the unsold fruits because to meet standard of cleanliness

Lack to meet standard because of cleanliness	Frequency	Percent	Cumulative Percent
Medium	1	4.3	4.3
very high	22	95.7	100.0
Total	23	100.0	

Source: own survey, 2014

Majority of respondents 95.7% perceive that the contribution of the parameter called fresh fruit cleanliness is at its high level. 4.3% of the respondents perceive that the contribution of the parameter is at its medium level. And no producer rate very low, low and high for the parameter's contribution.

Table 4. 28 Assessment of Benefits of meeting the standards and risks of failure to meet standard

Attributes	Very low		Low		Medium		High		Very high		Total	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Lower costs	3	13	8	34.8	10	43.5	2	8.7	0	0	23	100%
Focus on quality	0	0	0	0	2	8.7	0	0	21	91.3	23	100%
Make me to focus on increasing productivity and efficiency	0	0	0	0	0	0	2	8.7	21	91.3	23	100%
Improving customer service	0	0	0	0	0	0	2	8.7	21	91.3	23	100%

Source: own survey, 2014

The above table shows the benefit of keeping the standard of fresh fruit to be produced. The details are explained as follows in the below tables:

Table 4.29 benefits of keeping the standards on lowering costs

Benefits of keeping the standards on view of Lower costs	Frequency	Percent
very low	3	13.0
Low	8	34.8
Medium	10	43.5
High	2	8.7
Total	23	100.0

Source: own survey, 2014

As the table above shows the benefits of lowering costs of production and the majority of the respondents 43.5% perceive as the benefit is medium. Large numbers of the producers 34.8% perceive that the benefit of keeping the standard of fresh fruits to be produced is low. 13.0% of the respondents perceive that the benefit of keeping the standard is very low. 8.7% and 0% of the respondents perceive that the benefit of keeping the standard of fresh fruits is high and very high respectively.

Table 4.30 benefits of keeping the standards on focus on quality

Benefit of keeping the standards on view of Focus on quality	Frequency	Percent
Medium	2	8.7
very high	21	91.3
Total	23	100.0

Source: own survey, 2014

Majority of the respondents 91.3% perceive the benefit of keeping the standard of fresh fruits as very high to focus on the quality of the fresh fruits. Few numbers of the respondents 8.7% perceive that the benefit of keeping the standard to focus on the quality of the fresh fruits is medium. 0% No of the respondents perceive that the benefit of keeping the standard of fresh fruits is high, low and very low respectively.

Table 4.31 benefits of keeping the standards on focusing on increasing productivity and efficiency

Benefit of keeping the standards on view make us to focus on increasing productivity and efficiency	Frequency	Percent
High	2	8.7
very high	21	91.3
Total	23	100.0

Source: own survey, 2014

As shown table above, also shows the benefit of keeping the standard of fresh fruits to be produced in terms making the producer to focus on increasing productivity and efficiency. Here the majority of the respondents 91.3% perceive the benefit of keeping the standard of fresh fruits as very high in making them productive and efficient. 8.7% of the respondents perceive that the benefit of keeping the standard of fresh fruit is high. And 0% no respondents perceive the benefit as medium, low and very low. From this, one can easily

understand that keeping the standard of fresh fruits gives them an advantage in focusing on increasing productivity and efficiency at a very high rate.

Table 4.32 benefits of keeping the standards on focusing on improving customer service

Benefit of keeping the standards on view improving customer service	Frequency	Percent
High	2	8.7
very high	21	91.3
Total	23	100.0

Source: own survey, 2014

The above table shows the benefit of keeping the standard of fresh fruits to be produced in terms of improving customer service. The majority of the respondents 91.3% perceive the benefit as very high. Very few numbers of the respondents 8.7% perceive that the benefit of keeping the standard of fresh fruits to be produced is high. 0% respondents rate the benefit as medium, low and very low.

Table 4. 33 Risks of unfit fruits for the market

Attributes	Very low		Low		Medium		High		Very high		Total	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Loss of capital	0	0	0	0	2	8.7	5	21.7	16	69.6	23	100%
Broken promises	0	0	2	8.7	0	0	14	60.9	7	30.4	23	100%
Loss of security in the business	0	0	2	8.7	3	13.0	8	34.8	10	43.5	23	100%
Buyers failure to buy	0	0	0	0	2	8.7	8	34.8	13	56.5	23	100%
Reduction in income	0	0	0	0	2	8.7	6	26.1	15	65.2	23	100%

Source: own survey, 2014

The above table shows the risks of unfit fresh fruit produced to the local or international market.

Table 4.34 risks of unfit fruits for the market in view of losing capital

Risks of unfit fruits for the market in view of losing Capital	Frequency	Percent
Medium	2	8.7
High	5	21.7
very high	16	69.6
Total	23	100.0

Source: own survey, 2014

Among the many risks of unfit fresh fruits to the market, the one is loss of working capital and the majority of the respondents 69.6% perceive that the risk is very high. 21.7% of the respondents perceive that the risk of producing unfit fresh fruit to the market is high. 8.7% of the respondents perceive that the risk of unfit fresh fruit is medium. 0% no respondents rate the risk as it is low and very low. From this, one can understand that loss of working capital poses a very high risk for the production of unfit fresh fruit to the market.

Table 4.35 risks of unfit fruits for the market in view of broken promises

Risks of unfit fruits for the market in view of Broken promises	Frequency	Percent
Low	2	8.7
High	14	60.9
very high	7	30.4
Total	23	100.0

Source: own survey, 2014

As the table above shows in relation to the risk of broken promises with the buyer, the majority of the respondents 60.9% perceive broken promises as high risk. 30% of the p respondents perceive that the risk of producing unfit fresh fruits to the market is very high in the form of broken promises. 8.7%, of the producers perceives that the risk of unfit fresh fruits in the form of broken promises is low. And 0% no respondents rate the broken promises as medium and very low.

Table 4.36 risks of unfit fruits for the market in view of loss of security in the business

Risks of unfit fruits for the market in view of Loss of security in the business	Frequency	Percent
Low	2	8.7
Medium	3	13.0
High	8	34.8
very high	10	43.5
Total	23	100.0

Source: own survey, 2014

The above table also shows the risks of unfit fresh fruits produced to the market in the form of loss of security in the business. According to the data, the majority of the respondents 43.5% perceive the risk as very high. 34.8% of the respondents perceive that the risk of producing unfit fresh fruit to the market especially loss of security in the business is high. 13.0% and 8.7% of the respondents perceive that the risk of unfit fresh fruit is medium and low respectively. 0% no respondents rate the risk as it is very low. From this, one can understand that loss of security in the business is very high risk of unfit fresh fruits to the market.

Table 4. 37 risks of unfit fruits for the market in view of buyers failure to buy

Risks of unfit fruits for the market in view of buyers failure to buy	Frequency	Percent
Medium	2	8.7
High	8	34.8
very high	13	56.5
Total	23	100.0

Source: own survey, 2014

The other risk is buyers' failure to buy the fresh fruits. Accordingly, the majority of the respondents 56.5% perceive the risk is very high. Significant numbers of respondents 34.8% perceive that the risks of unfit fresh fruits produced is at high. 8.7% of the respondents perceive that the risk of unfit fresh fruit is medium. 0% no respondents rate the risk as it is low and very low. From this, one can understand that the risk of buyers to buy unfit fresh fruit is very high.

Table 4.38 risks of unfit fruits for the market in view of reduction in income

Risks of unfit fruits for the market in view of Reduction in income	Frequency	Percent
Medium	2	8.7
High	6	26.1
very high	15	65.2
Total	23	100.0

Source: own survey, 2014

Table the above also shows the risks of unfit fresh fruit produced to the market in the form of reduction in income and the majority of the respondents 65.2% perceive the risk as very high. 26.1% of the producers perceive that the risk of producing unfit fresh fruit to the market in reducing income is high. 8.7% of the respondents perceive that the risk of unfit fresh fruit is medium. But, no any producer rates the risk as it is low and very low. From this, one can understand that reduction in income is very high risk of unfit fresh fruit to the market.

Table 4.39 risks in production

Attributes	Very low		Low		Medium		High		Very high		Total	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Environmental hazards like drought and flood	0	0	0	0	0	0	16	69.6	7	30.4	23	100%
Declining soil fertility	0	0	8	34.8	15	65.2	0	0	0	0	23	100%
Value of agricultural inputs	0	0	0	0	8	34.8	9	39.1	6	26.1	23	100%
Aging trees	14	60.9	9	39.1	0	0	0	0	0	0	23	100%
Poor follow up	0	0	10	43.5	12	52.2	1	4.3	0	0	23	100%
Lack of scientific practice	0	0	0	0	0	0	7	30.4	16	69.6	23	100%

Source: own survey, 2014

The table shows the risks in production process in which fresh fruit producer companies are facing. From this table, we can infer about Environmental hazards like drought and flood are that the majority of the respondents 69.6% are responding that the risk influence is high in

the production process, 30.4% of the respondents are responding the influence is very high in the production process, 0% of the respondents are responding the influence is very low, low and medium.

Taking perception of respondents on the effect of declining soil fertility on production into consideration, large number of the respondents 65.2% perceive declining soil fertility have a medium effect on production. Among the respondents, 34.8% of them perceive declining soil fertility has Low risk for production while 0% of them believe soil fertility has got very low, high very high risk for production.

As clearly indicated in the table the majority of the respondents 39.1% perceive expensive value of agricultural input of have high risk for production. A significant number of respondents 34.8 % also perceive the value of input has medium risk for production. 26.1% of the respondents perceive value of input as very high risk for production while 0% of them perceive the value of input has very low and low risk for fresh fruit production. From this one can easily understand that the value of agricultural input as crucial element to determine the fresh fruit production.

The above table also contains data on the effect of aging fruit trees on fresh fruit production. As it can be seen under the table, the majority of the respondents 60.9% perceive aging trees have very low risk for production. A significant number of respondents 39.1% perceive aging trees as having low risk for production while 0% of the respondent perceives aging trees as having medium, high and very high risk for fresh fruit production.

Taking the perception of respondents on the effect of poor follow up on production into consideration, the majority of the respondents 52.2% perceive poor follow up has a medium effect on production. Large numbers of respondents 43.5% perceive poor follow up as low risk in production while 4.3% of the respondents perceive poor follow up as high risk in production. As indicated in the table 0% of the respondents perceive poor follow up as having a very low and very high risk for production.

As shown the above table, also indicates the effect of lack of scientific practice on production. As can be clearly indicated in the table, the majority of the respondents 69.6% perceive lack of scientific practice have very high risk for production. 30.4% of the respondents also perceive lack of scientific practice as a high risk for production. 0% of the

respondents perceive lack of scientific practice as medium, low and very low risk for production. From this one can easily understand that lack of scientific practice as a risk for production.

Requirements on production techniques fresh fruit producers fulfil : Regarding the production techniques that the producers fulfil are which is sales country-specific requirements regulations such as IPM – integrate pest management, Very environmental friendly products, global GAP, land preparation, post harvesting: spraying and etc.

Assistance of institutions to support keeping standard of fresh Fruits:

Efforts made by the EHDA and EHPEA to support fresh fruit producers to keep the standard of fruits they produce according the Ethiopian Horticulture Development Agency; the government of Ethiopia has given due importance to horticulture developments starting from the past few years. Understanding the sector’s huge potential as a possible source of employment opportunity, foreign exchange and income for rural farmers, By the same token, fruit, which is part and parcel of the horticulture sector, have got relatively better attention than before. Some of the positive works done include;

- i. Efforts to solve infrastructure problems like water, road, electricity and the likes.
- ii. Providing Safety training & product handling ,
- iii. Giving technical training on production & post-harvest handling. Technical, on production, Harvesting, Postharvest handling and etc.

Table 4.40 support of the EHDA and EHPEA to the producers

Support of the EHDA and EHPEA to the producers	Frequency	Percent
very low	3	13.0
Low	8	34.8
Medium	10	43.5
High	2	8.7
Total	23	100.0

Source: own survey, 2014

As the table above shows, the support of the EHDA and EHPEA to the producers and the majority of the respondents 43.5% perceive as the support is medium. Large numbers of the producers 34.8% perceive that the support of keeping the standard of fresh fruits to be

produced is low. 13.0% of the respondents perceive that the support of keeping the standard is very low. 8.7% and 0% of the respondents perceive that the support of keeping the standard of fresh fruits is high and very high respectively. According to the research shows the support of the EHDA and EHPEA is medium.

4.6 Trade standard are catalyst or barriers to Ethiopian Fresh fruits

The role of food safety standards in international trade has become an important topic for discussion in recent literature. The view of the 'standards-as-barriers' to trade holds that increased food safety standards in developed countries are used as protectionist tools or in a discriminatory manner (Roberts, et al., 1999; Caswell, 2003). Conversely, the 'standards-as-catalysts' is more optimistic view that emphasizes the opportunities provided by emerging food quality requirements and the possibility that developing countries could use them to increase their competitive advantages (Steven, 2005).

“standards as barriers” view hypothesizes a differential negative effect of HACCP adoption for developing countries. In the other side, developed countries, which mainly account for the implementation of enhanced food quality and safety standards, may experience a positive or a less negative effect of HACCP introduction on exports to the U.S. Industrialized countries are assumed to have the resources to adapt more quickly to increases in standards. Moreover, a drop in exports from developing countries in the post HACCP period may allow developed countries to add market share in seafood trade with the United States (Caswell, 2007).

It is important for companies to engage in business of fresh fruit abroad in order to stay competitive. Even though the decision to start trading with foreign countries may seem rational and unavoidable for many companies there are obstacles that could and will affect the business outcome. It is important to have a thorough understanding of all impacts the international trade will have on the business and its performances.

Standards are increasingly critical for international trade competitiveness and becoming more decisive at the domestic level in less developed countries like Ethiopia. This is especially true for higher-value and perishable products including like fresh fruits. Standards, like the markets they serve, are dynamic and rapidly evolving. They face very considerable challenges, especially for new fresh fruits producers in the developing countries. Yet, within the challenge of standards there is an opportunities.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

In the first part of this chapter conclusions drawn from major findings of the study are presented and these are followed by recommendations that researcher forwarded so as to enhance the coffee standard.

5.1. Conclusions

The main objective of this study was to assess trade standards on Ethiopia's fresh fruit export. Standards are increasingly critical for international trade competitiveness and becoming more decisive at the domestic level in less developed countries like Ethiopia. This is especially true for higher-value and perishable products including fresh fruits. They face very considerable challenges. To address this problems I had the specific objectives; explore the trend of fresh fruit export of Ethiopia, the kinds of standards adhered by fresh fruit exporters, whether fruit export standards are catalysts or barriers to Ethiopian fresh fruit exporters and the contribution of trade standards up on fresh fruit exporter firms. To achieve these objectives both primary and secondary data have been obtained. Primary data was obtained through structured questionnaires and semi structured interview and the collected data is analyzed and discussed through descriptive statistical methods. Based on the data analysis and discussion in the previous Chapter, the researcher has managed to conclude the following major points.

As the export volume of fresh fruits increases, the total marketable fresh fruits of the country will also increase on average over time; this leads to the volume of unfit fresh fruits to increase. Note that this is based on the independent observation of each elements tend.

The assessed Producers depend only on the certification, provided by Global GAP. However; the international market demands other certification like Global GAP, BRC, SEMETA, TESCO and etc. As a result, these certifications limit the exporters' market share volume in the international market of fresh fruits.

The study identified that trade standards are barriers for Ethiopia's fresh fruit export volume and have significant impact on producers too. Generally, standards becoming a global phenomenon, countries in the developing world face increasing constraints in exporting their

products to markets in the developed countries (KAR, n.d). It can be concluded that trade standards are barriers for fresh fruit export volume in developing countries.

For some producers, standards may open up new opportunities as they make possible market access to particular market segments and we can take this state as if trade standards have the role of being catalysts when they give chance for the producers' comparative advantage.

5.2. Recommendations

Based on the conclusions of the study, the following recommendations are proposed:

- i. Ethiopia should focus on the growth of fresh fruit export through enhancing production, introduction of new production technology, appropriate post-harvest handling, and exploiting the potential in all regions. In addition to regulatory and supervisory support, the Ethiopian Standards Agency (ESA) and the government should introduce capacity building measures for local fresh fruit exporter firms and improve their production of standard fruits to the international market.
- ii. The assessed Producers depend only on the certification, of Global GAP. However, the international market demands certification like BRC, SEMETA, TESCO etc. So, the concerned bodies like the Ethiopian Commodity Exchange and Ministry of Agriculture should have due responsibility in clarifying the overall technical standard parameters that becomes a barrier to export market.
- iii. The Ethiopian government specially the Ministry of Trade should put additional effort to come up with different preferential free trade agreements with major international market destinations especially for potential high value export commodities like fresh fruit.
- iv. Moreover, in order to strengthen the competitive capability of Ethiopian fresh fruit exporters and strengthen an adequate capital base to the required level, it is advisable to hire highly skilled employees who have enough knowledge in using an advanced technology on assuring the quality of the export fruits. The sector should exert more efforts for production of standard fresh fruits than ever before, to achieve the goal held by its GTP. Besides, the government should introduce standard production of fruits to change mindset of the producers towards fresh fruit production to international market. Even though, majority of the producers get very little assistance from government and other institutions like Ethiopian Horticulture Development Agency (EHDA) and Ethiopian Horticulture Producer Exporters Association (EHPEA) they are still suffering by lack of scientific practice and shortage of agricultural inputs. So, the type and level of assistance that is given to producers should be reviewed so as to make the assistance bring dramatic change for producers in terms of maximization of the products to international market and the revenue they get.

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APPENDICES

Appendix 1
Questionnaire
Mekelle University
College of Business and Economics
Department of Management

Introduction

This questionnaire is prepared by Mr. Dawit Negussie, a post graduate student (MBA) in Mekelle University for partial fulfillment of master degree. The aim of this questionnaire is to collect data about **The assessment of trade standards on Ethiopia's fruit export volume**. The information you will provide has both academic and policy relevant values in the areas of insurance and marketing. I confirm you that all data will be used for academic purpose and will be analyzed anonymously, and hence you are not exposed to any harm because of the information you give. I highly appreciate in advance to your kind cooperation in providing the necessary information.

Thank you!!

Yours cordially, Dawit Negussie

Phone-+251911902792

Email;dawitnegus@yahoo.com

I. general Questions for the respondent

1. Sex of the respondent: 1. Male ☐ 2. Female ☐
2. Age of the producer
 - 1) 18-30 years ☐ 2) 31-45 years ☐ 3) above 45 years ☐
3. Level of education of the producer:
 - 1) Second degree and above ☐ 2) First degree ☐ 3) Diploma ☐
 - 4) Certificate ☐ 5) High school ☐ 6) Elementary ☐
 - 7) Illiterate ☐
4. How many years of experience you have on Fruit production?
 - 1) Below a year ☐ 2) 6-10 years ☐ 3) More than 15 years ☐
 - 4) 1-5 years ☐ 5) 11- 15 years ☐

II. Questions to assess the issue of standard (grade)?

1. What standards are set on the quality of fresh fruit?
Very low standard ☐ Low standard ☐ Medium ☐ High standard ☐ Very high standard ☐
2. What quality standards does your product fulfil?
Very low standard ☐ Low standard ☐ Medium ☐ High standard ☐ Very high standard ☐
3. To what degree are regulations in force?
Very low standard ☐ Low standard ☐ Medium ☐ High standard ☐ Very high standard ☐
4. What quality standards does customer demand?
Very low standard ☐ Low standard ☐ Medium ☐ High standard ☐ Very high standard ☐
5. How high are the standards demanded on packaging methods?
Very low standard ☐ Low standard ☐ Medium ☐ High standard ☐ Very high standard ☐
6. What package sizes and materials do you use?
Very low standard ☐ Low standard ☐ Medium ☐ High standard ☐ Very high standard ☐

7. What package sizes does customer demand?

Very low standard ☐ Low standard ☐ Medium ☐ High standard ☐ Very high standard ☐

8. What packaging materials do you use?

Very low standard ☐ Low standard ☐ Medium ☐ High standard ☐ Very high standard ☐

9. What packing materials does customer demand?

Very low standard ☐ Low standard ☐ Medium ☐ High standard ☐ Very high standard ☐

10. What is your knowledge and understanding of fruit standard or grade?

Very low ☐ Low ☐ Medium ☐ High ☐ Very high ☐

11. How do you keeping the standard of the fruits?

- 1) Periodical follow up ☐
- 2) Application of necessary inputs (like fertilizer) ☐
- 3) Application of scientific practice ☐
- 4) Environmental protection like terracing ☐
- 5) Cultivation of new fruit trees ☐

12. How do you rank the risks that you face in the production process to keep the process yield best standard fruit?

No.	Risks in production	Very low (1)	Low (2)	Medium (3)	High (4)	Very high (5)
1.	Environmental hazards like drought and floods					
2.	Declining soil fertility					
3.	Value of agricultural inputs					
4.	Aging trees					
5.	Poor follow up					
6.	Lack of scientific practice					

13. How many quintals of fruits you are producing in the production year 2013/14 G.C from the total land you are using?

- 1) 1-500 quintals ☐ 3) 1001-1500 quintals ☐ 5) above 2000 quintals ☐
2) 501-1000 quintals ☐ 4) 1501-2000 quintals ☐

14. How much of it was supplied to the international market last year?

- 1) 1-500 quintals ☐ 3) 1001-1500 quintals ☐ 5) above 2000 quintals ☐
2) 501-1000 quintals ☐ 4) 1501-2000 quintals ☐

15. How much of it was not sold last year?

- 1) Below one quintal ☐ 3) 51-100 quintals ☐ 5) above 150 quintals ☐
 2) 1-50 quintals ☐ 4) 101-150 quintals ☐

16. What were the possible reasons for the unsold fruits?

	Description	No	Yes
1	Price volatility		
2	Fall in domestic consumption		
3	Lack to meet standard		
4	Transportation problem		
5	Cooperatives failure		
6	Need for family consumption		
7	I sold what I have produced		

17. If you select the option, lack to meet standard, in question 16, how much of it was not sold related with lack to meet standard in quintals?

- 1) Below one quintal ☐ 3) 51-100 quintals ☐ 5) above 150 quintals ☐
 2) 1-50 quintals ☐ 4) 101-150 quintals ☐

18. If you select lack to meet standard in question 16, rate the parameters;

No.	Parameters	Very low	Low	Medium	High	Very high
1	Moisture content					
2	size/screen					
3	Odor					
4	Defect point					
5	Color					
6	Taste/flavor					
7	cleanliness					

III. Questions to assess the benefits of keeping standards and risks for failures of keeping the standard

1. What are the **benefits** of keeping the standards?

No.	Benefits	Very low	Low	Medium	High	Very high
1.	Lower costs					
2.	Focus on quality					
3.	Make us to focus on increasing productivity and efficiency					
4.	Improving customer service					

2. What are the **Risks** of unfit fruits for the market?

No.	Risks	Very low	Low	Medium	High	Very high
1.	Loss of Capital					
2.	Broken promises					
3.	Loss of security in the business					
4.	Buyers failure to buy					
5.	Reduction in income					

Thank you so much for your kind cooperation!

Appendix 2

Interview questions for managers

1. What kind of standards do you adhere?
2. Are there import restrictions that limit sales opportunities? Yes ☐ No ☐
3. If the answer for question number 2 is yes, what are they?
4. What are the requirements of customer regarding production techniques and certification?
5. What requirements on production techniques do you fulfil?
☐ no special ☐ sales country-specific requirements regulations
6. How do you understand standard?
I – provision concerning quality
+ Minimum requirement:
Moisture content ☐ Undamaged ☐ clean ☐ free from pest ☐ free from any smell ☐
+ Classification – extra class ☐ class I ☐ class II ☐
II – provision concerning sizing
The minimum: 25 mm in “Extra” Class ☐ 18 mm in Classes I and II ☐
III – provision concerning presentation
+ Uniformity ☐ + Packaging ☐
IV – Provision concerning Marketing
Identification ☐ Nature of produce ☐ Origin of produce ☐
7. Is there any assistance from any institutions to support you to keep the standard of fruits you produce? Yes ☐ No ☐
8. If your answer for the question number 7 is yes, what institution is/are?
9. If you get assistance from the institutions, indicate the type of assistance you get?
10. If you answer question number 8, how do you rate the effort of the institution to clarify the issue of fruit standard and grading?
Very low ☐ Low ☐ Medium ☐ High ☐ Very high ☐
11. Do you have risks that you face in the production process yield best standard fruit?
1) Yes 2) No
12. If your answer for the question number 11 is yes. How are they being addressed the risks?

Thank you so much for your kind cooperation!

Secondary Data (EHDA, 2014)

Major fruit exporters to Europe & Middle east market

Bd. Year	EXPORTERS	DESCRIPTION	WEIGHT (KG)	VALUE (USD)
2000	Almeta Impex	Strawberry	38,400.00	104,720.00
2001	Almeta Impex	Strawberry	11,200.00	26,880.00
2002	Almeta Impex	Strawberry	7,500.00	18,000.00
2000	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	6,750.00	23,287.50
2001	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	500.00	750.00
2002	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	17,625.00	30,808.44
2002	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	48,460.00	68,815.05
2001	Almeta Impex	Strawberry	19,750.00	50,600.00
2002	Almeta Impex	Strawberry	4,963.00	11,910.00
2001	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	10,350.00	220,162.00
2002	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	200.00	500.00
2003	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	17,750.00	31,950.00
2003	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	8,810.00	22,385.94
2001	Almeta Impex	Strawberry	11,050.00	32,370.00
2002	Almeta Impex	Strawberry	3,203.00	7,694.00
2000	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	9,557.60	19,400.07
2002	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	1,000.00	2,370.00
2003	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	16,725.00	36,600.94
2002	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	10,372.00	20,439.00
2003	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	39,317.00	68,033.84
2003	Nuredin Hassen	Strawberry	920.00	1,768.00
2000	Almeta Impex	Strawberry	35,525.00	120,705.57
2001	Almeta Impex	Strawberry	12,038.00	30,150.00
2002	Almeta Impex	Strawberry	5,905.00	19,881.00
2000	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	17,275.00	47,122.82
2001	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	4,409.00	16,093.00
2002	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	29,638.00	80,507.00
2002	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	62,962.00	133,309.00
2001	Luna Fruit	Grape	900.00	1,800.00
2001	Almeta Impex	Strawberry	14,250.00	36,800.00
2002	Almeta Impex	Strawberry	12,010.00	28,850.00
2003	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	21,300.00	39,494.46
2003	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	23,446.00	45,145.99
2000	Almeta Impex	Strawberry	62,300.00	189,312.58
2001	Almeta Impex	Strawberry	13,956.00	42,150.00
2002	Almeta Impex	Strawberry	2,000.00	4,800.00
2000	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	39,457.50	66,684.35
2001	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	5,200.00	8,550.00

2002	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	24,650.00	45,118.00
2002	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	30,558.00	62,443.00
2001	Almeta Impex	Strawberry	24,750.00	59,468.66
2002	Almeta Impex	Strawberry	5,250.00	12,600.00
2003	Almeta Impex	Strawberry	1,000.00	2,400.00
2001	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	4,325.00	6,490.40
2003	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	19,675.00	36,612.50
2003	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	8,479.00	15,384.12
2000	Almeta Impex	Strawberry	23,800.00	66,327.15
2001	Almeta Impex	Strawberry	10,975.00	26,340.00
2000	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	3,572.00	8,946.47
2002	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	19,000.00	33,750.00
2002	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	23,662.00	44,802.53
2001	Almeta Impex	Strawberry	610.00	1,464.00
2002	Almeta Impex	Strawberry	3,000.00	7,200.00
2003	Almeta Impex	Different	2.00	10.00
2000	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	18,152.50	34,770.06
2001	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	3,904.00	13,657.00
2002	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	10,685.00	30,831.00
2003	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	17,787.50	42,850.87
2002	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	14,234.00	25,174.00
2003	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	38,320.00	59,242.88
2003	The Giving Tree Nusrery	Strawberry	5,315.60	6,365.64
2001	Almeta Impex	Strawberry	15,270.00	38,430.00
2002	Almeta Impex	Strawberry	10,100.00	24,500.00
2001	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	3,660.00	5,640.00
2003	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	20,550.00	37,259.41
2002	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	855.00	2,475.00
2003	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	48,189.00	89,275.68
2003	Nuredin Hassen	Strawberry	800.00	1,600.00
2000	Almeta Impex	Strawberry	2,940.00	12,271.74
2001	Almeta Impex	Strawberry	2,000.00	10,000.00
2002	Almeta Impex	Strawberry	7,000.00	19,425.00
2000	Ethio Veg Fru	Rocula	200.00	584.97
2000	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	30,421.70	63,228.09
2001	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	5,000.00	17,609.00
2002	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	15,900.00	51,193.00
2003	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	17,450.00	47,506.34
2002	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	15,804.00	37,453.00
2003	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	21,174.00	36,398.72
2003	The Giving Tree Nusrery	Melon	10,208.00	13,270.40

2000	Almeta Impex	Strawberry	6,799.00	22,656.11
2001	Almeta Impex	Strawberry	3,780.00	10,060.00
2002	Almeta Impex	Strawberry	2,258.00	7,979.00
2000	Ethio Veg Fru	Rocula	330.00	967.98
2000	Ethio Veg Fru	Strawberry	112.00	327.58
2000	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	15,700.00	34,858.72
2001	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	7,888.00	26,200.00
2002	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	26,478.00	92,133.00
2002	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	29,060.00	64,354.00
2003	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	12,250.00	30,982.07
2003	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	5,566.00	9,647.40
2003	Nuredin Hassen	Strawberry	332.00	713.80
2003	The Giving Tree Nusrery	Melon	36,685.00	47,697.76
2003	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	8,000.00	20,844.76
2003	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	2,940.00	5,045.99
2003	The Giving Tree Nusrery	Lemon	29.00	37.60
2003	Upper Awash	Mango	12.00	60.00
2003	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	12,862.50	27,031.25
2003	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	3,320.00	6,112.71
2003	JITTU HORTICULTURE PRIVATE LIMITEDE	Melon	10.00	11.20
2003	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	10,400.00	21,500.00
2003	JITTU HORTICULTURE PRIVATE LIMITEDE	Blackberry	440.00	856.00
2003	JITTU HORTICULTURE PRIVATE LIMITEDE	Rock Melon	288.00	296.64
2003	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	2,272.00	4,232.55
2003	Upper Awash	Mango	24.00	7.06
2003	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	7,900.00	16,750.00
2003	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	688.00	1,184.92
2003	JITTU HORTICULTURE PRIVATE LIMITEDE	Blackberry	110.00	174.90
2004	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	6,400.00	13,000.00
2004	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	788.00	1,014.70
2004	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	6,875.00	13,387.50
2004	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	1,894.00	2,696.19
2004	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	11,160.00	14,504.99
2004	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	33,926.00	49,309.23
2004	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	11,287.50	29,087.02
2004	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	49,063.75	80,819.50
2004	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	26,862.50	75,862.24
2004	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	42,925.00	73,947.49
2004	Almeta Impex	Strawberry	2.00	5.80
2004	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	58,337.50	163,074.64
2004	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	48,908.00	81,195.99

2004	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	26,750.00	65,186.06
2004	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	47,558.00	81,654.49
2004	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	14,275.00	28,537.50
2004	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	41,954.00	73,720.49
2004	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	27800	62187.9907
2004	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	43892	76800.51776
2004	Africa Juice	Mango	15	4.499667609
2004	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	20425	32887.49514
2004	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	45073	67060.40111
2004	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	36600	43024.99328
2004	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	34554	36292.62804
2005	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	25,542.50	30,768.49
2005	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	29,598.00	31,095.89
2005	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	24,837.50	30,507.24
2005	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	23,844.00	25,481.43
2005	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	15,200.00	17,425.00
2005	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	20,900.00	21,962.99
2005	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	14,637.50	17,956.25
2005	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	13,693.00	14,567.51
2005	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	43,162.50	37,125.14
2005	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	16,728.00	20,053.41
2005	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	21,075.00	27,331.90
2005	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	11,702.00	12,302.77
2005	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	16,800.00	22,710.99
2005	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	17,208.00	18,521.51
2005	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	7,775.00	11,161.40
2005	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	22,321.00	23,606.79
2005	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	33,700.00	29,654.93
2005	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	20,929.00	22,385.25
2005	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	9,937.50	10,531.25
2005	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	37,073.00	38,959.80
2005	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	12,065.00	12,039.93
2005	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	46,645.00	50,765.16
2005	LUNA FRUITS PRIVATE LIMITED COMPANY	PAPAYA	5.00	20.00
2005	RAINBOW COLOURS PRIVATE LIMITED COM	PAPAYA	12.00	72.00
2005	ILAN TOT PRIVATE LIMITED COMPANY	Strawberry	9,375.00	9,683.60
2005	JITTU HORTICULTURE PRIVATE LIMITEDE	Strawberry	41,886.00	45,065.77

Source: EHDA, 2014